TOUSTOOT FACTS

2022

GREATER
HOUSTON
PARTNERSHIP

Your Guide to Data on the Houston Region



HOUSTON FACTS

2022

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ABOUT THE GREATER HOUSTON PARTNERSHIP

The mission of the Greater Houston Partnership is to make Houston one of the world's best places to live, work and build a business. The Partnership works to make Houston greater by promoting economic development, foreign trade and investment, and by advocating for efficient and effective government that supports, rather than impedes, business growth. The Partnership also convenes key stakeholders to solve the region's most pressing issues.

The Partnership was formed in 1989 in a merger of the Greater Houston Chamber of Commerce, the Houston Economic Development Council and the Houston World Trade Association. Today, the Partnership serves the 12-county greater Houston region and represents a member roster of over 950 businesses and institutions. Members of the Partnership account for one-fifth of all jobs in Houston. They engage in various initiatives, committees and task forces to work toward our goal of making Houston greater.

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Houston Facts has presented unvarnished information about the Houston region since 1959, and its predecessor publications—under different names, but with the same objective—date back to 1906. Over the decades, Houston Facts has grown well beyond its original four pages so that we could expand the range and depth of coverage, bringing you more information about parks, museums, schools, living costs, the regional economy and a host of other topics. It has evolved into a concise almanac for the Houston region. Corporate planners, market analysts, students, relocation and site selection consultants, real estate professionals, government agencies and myriad others turn to it for authoritative information on this region.

Of course, we believe the Houston region is one of the nation's most attractive major metropolitan areas—an outstanding place to live, work and build a business. We would like you to share that view. But we won't try to persuade you. The facts need no embellishment. They speak for themselves.

You may find in these pages facts that you never knew about the Houston region. For example:

Nearly 1.7 million Houstonians, or roughly one in four, were born outside the U.S.

If Houston were a country, it would rank as the 27th largest economy in the world—exceeding Austria's and Nigeria's Gross Domestic Product.

Metro Houston has the third largest number of Fortune 500 companies in the nation.

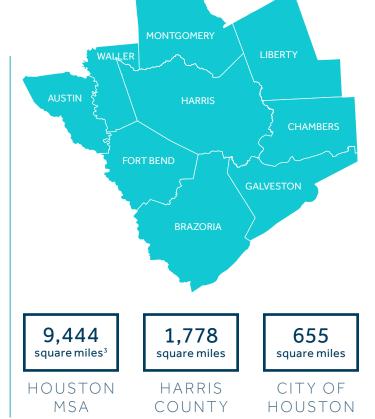
Houston is home to more than 8,800 techrelated firms, including more than 800 venturebacked startups. These companies have received more than \$4.35 billion in venture capital funding over the past five years.



GEOGRAPHY

The Houston-The Woodlands-Sugar Land Metropolitan Statistical Area (MSA) contains nine Texas counties: Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery and Waller. Within these nine counties are 124 incorporated cities and 33 Census Designated Places (CDP).

The county seat or administrative center of Harris County is the City of Houston. Harris County contains the bulk of the city in addition to all or part of 33 incorporated cities and 12 CDPs. Small portions of Houston spread into adjacent Montgomery and Fort Bend counties.



The longer title is shortened to "Houston MSA," "metro Houston," "Greater Houston," "Houston area" or simply "Houston" in Houston Facts. MSAs are geographic delineations defined by the Office of Management and Budget (OMB) for use by federal statistical agencies in collecting, tabulating and publishing data.

² A Census Designated Place functions like a city or town but is not incorporated.

³ Combined land and water area.



Population

The nine-county **Houston MSA** had a population of 7,206,841 residents as of July 1, 2021, according to estimates by the U.S. Census Bureau.

If metro Houston were a state, it would have the 15th largest population in the U.S., behind Arizona (7,276,316) and ahead of Massachusetts (6,984,723) and Tennessee (6,975,218).

Harris County had a population of 4,728,030 residents as of July 1, 2021, according to estimates by the U.S. Census Bureau.

If Harris County were a state, it would have the 25th largest population in the U.S., behind Alabama (5,039,877) and ahead of Louisiana (4,624,047) and Kentucky (4,509,394).

The **City of Houston** had a population of 2,288,250 residents as of July 1, 2021, according to estimates by the U.S. Census Bureau.

If the city were a state, it would rank 36th in population in the U.S., behind Kansas (2,934,582) but ahead of New Mexico (2,115,877) and Nebraska (1,963,692).

Area

The nine-county Houston-The Woodlands-Sugar Land Metropolitan Statistical Area (MSA) covers 9,444 square miles. If the MSA were a state, it would rank as the 45th largest, ahead of New Hampshire, New Jersey, Connecticut, Delaware and Rhode Island.

Harris County covers 1,778 square miles, enough space to fit the cities of Austin, Boston, Chicago, Dallas, New York City and Seattle with room still to spare.

At 665 square miles, the **City of Houston** is larger in area than the cities of Chicago, Dallas, Los Angeles, New York, Phoenix and San Diego.



Economy

The U.S. Bureau of Economic Analysis estimates the Houston MSA's Gross Domestic Product (GDP) at \$488.2 billion in '20, making it the seventh largest U.S. metro economy.

If Houston were a state, its GDP would rank 15th, behind Virgina (\$591.9 billion) and Michigan (\$568.4 billion) but ahead of Maryland (\$438.2 billion) and Colorado (\$421.9 billion.)

If the MSA were an independent nation, it would rank as the world's 27th largest economy, behind Belgium (\$521.4 billion) and Thailand (\$500.3 billion) but ahead of Austria (\$432.9 billion) and Nigeria (\$429.4 billion), according to the International Monetary Fund.

SELECTED KEY ECONOMIC INDICATORS FOR '21

The Houston Association of Realtors Multiple Listing Service recorded closings on 131,008 properties (includes single-family homes, townhomes, condos, high rises, etc.) in '21, an average of one every 4.0 minutes.

Houston MSA automobile dealers sold 274,604 new cars, trucks and SUVs in '21, an average of one every 1.9 minutes.

The City of Houston issued building permits for construction valued at \$5.9 billion in '21, an average of \$11,272 per minute.

DEMOGRAPHICS

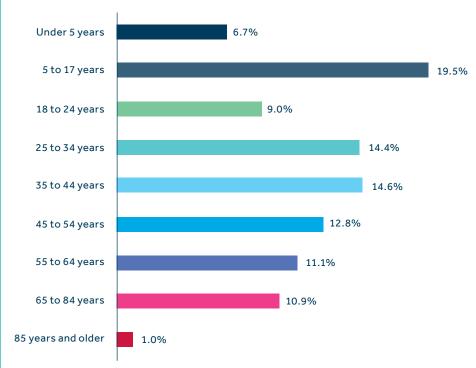
Population and People

The Houston-The Woodlands-Sugar Land MSA's population of 7,206,841 residents on July 1, 2021 ranks fifth among the nation's metropolitan areas. The Houston MSA had the third largest numeric increase (69,094) in population of any U.S. metro from July 1, 2020 to July 1, 2021, reflecting 1.3 percent growth.

Harris County, population of 4,728,030 on July 1, 2021, ranks as the third most populous county in the nation. Harris County lost population between July 1, 2020 and July 1, 2021, with 4,461 fewer residents than it had the year before. Harris was one of 1,313 counties to record population losses.

The City of Houston, the fourth most populous U.S. city, had a population of 2,288,250 on July 1, 2021. Houston lost 11,777 residents between July 1, 2020 and July 1, 2021. Of the nation's 250 most populous cities, 140 recorded population losses.

AGE DISTRIBUTION Houston MSA, 2021

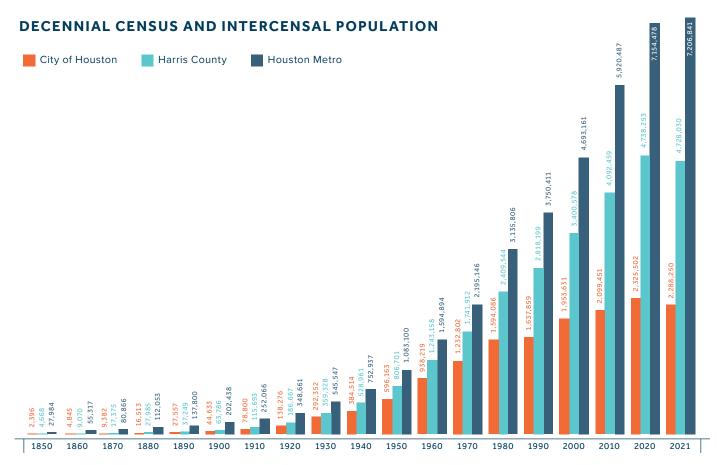


Note: Sums may not total due to rounding. Source: U.S. Census Bureau, Population Division

SELECTED DEMOGRAPHIC CHARACTERISTICS Metro Houston

	MEDIAN AGE (YEARS)	TOTAL HOUSEHOLDS	AVERAGE HOUSEHOLD SIZE	PERCENT OF ADULTS WITH BACHELOR'S DEGREE OR HIGHER	PERCENT OF POPULATION FOREIGN BORN
Austin County	41.7	11,569	2.56	23.0	9.5
Brazoria County	36.5	124,184	2.87	31.1	13.0
Chambers County	34.7	14,266	2.97	22.5	6.7
Fort Bend County	37.1	248,299	3.16	46.5	28.6
Galveston County	38.5	125,204	2.65	32.1	9.6
Harris County	34.4	1,635,749	2.84	32.2	26.0
Liberty County	33.8	27,417	2.88	9.9	9.3
Montgomery County	37.2	205,719	2.86	34.9	13.5
Waller County	30.9	15,586	3.16	23.0	13.3
HOUSTON MSA	35.3	2,407,993	2.87	33.6	23.3

Note: County data may not sum to Houston MSA total due to rounding errors. Source: U.S. Census Bureau, 2015-2020 American Community Survey



Source: U.S. Census Bureau, Texas Almanac

COMPONENTS OF POPULATION CHANGE Metro Houston, 2011 - 2021

	POPULATION			CHANGE SI	NCE '11		
			NET MIGR	ATION	NATURAL	INCREASE	TOTAL
	'11	'21	INTERNATIONAL MIGRATION	DOMESTIC MIGRATION	BIRTHS	DEATHS	POPULATION CHANGE
Austin County	28,604	30,380	201	1,088	3,486	2,879	1,776
Brazoria County	319,147	379,689	3,765	39,335	48,068	23,870	60,542
Chambers County	35,699	48,865	473	7,717	5,316	2,836	13,166
Fort Bend County	606,064	858,527	45,207	151,309	92,204	32,615	252,463
Galveston County	295,605	355,062	4,828	35,765	40,897	27,749	59,457
Harris County	4,179,568	4,728,030	273,293	-104,839	700,538	267,179	548,462
Liberty County	75,990	97,621	238	15,054	11,367	8,201	21,631
Montgomery County	471,415	648,886	12,611	129,792	71,356	37,955	177,471
Waller County	44,101	59,781	363	11,139	6,439	3,285	15,680
HOUSTON MSA	6,056,193	7,206,841	340,979	286,360	979,671	406,569	1,150,648

Note: In some cases, the increase due to migration and the natural increase will not sum to the change in population due to rounding and the Bureau's use of residual values in generating the estimates.

Source: U.S. Census Bureau, 2021 Population Estimates

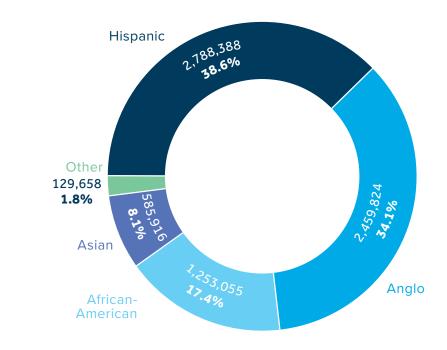
1 | V 4 HOUSTONIANS

was born outside the U.S.

Nearly one in four Houstonians was born outside the U.S. Among the 1,654,511 foreign-born in the Houston metro area, 71.8 percent entered the U.S. before '10.

Top regions of birth for the Houston MSA's foreign-born are: Latin America (62.0 percent), Asia (25.9 percent), Africa (6.3 percent) and Europe (4.4 percent), North America (1.1 percent).

RACE/ETHNIC COMPOSITION Houston MSA, 2021



Note: Hispanic/Latino includes all races. Sums may not total due to rounding. Source: U.S. Census Bureau, 2021 Population Estimates



EDUCATIONAL ATTAINMENT Houston MSA

	POPULATION AGE 25 OR OLD		
HIGHEST EDUCATION LEVEL ATTAINED	NUMBER	PERCENT	
NO HIGH SCHOOL DIPLOMA	705,194	15.7	
HIGH SCHOOL GRADUATE OR HIGHER	3,786,059	84.3	
High School Diploma or GED	1,025,639	22.8	
Some College, No Degree	919,042	20.5	
Associate Degree	332,754	7.4	
BACHELOR'S DEGREE OR HIGHER	1,508,642	33.6	
Bachelor's Degree	957,094	21.3	
Graduate or Professional Degree	551,530	12.3	
TOTAL POPULATION AGE 25 OR OLDER	4,491,253	100.0	

Note: Sums may not total due to rounding. Source: U.S. Census Bureau, 2015-2020 American Community Survey

Income

PER CAPITA PERSONAL INCOME

The nine-county Houston MSA's pretax per capita personal income (PCPI) was \$59,893 in '20, 0.6 percent above the national average of \$59,510, according to the latest data available from the U.S. Bureau of Economic Analysis (BEA). PCPI increased 1.7 percent in the Houston MSA, compared to 6.2 percent nationwide from '19 to '20.

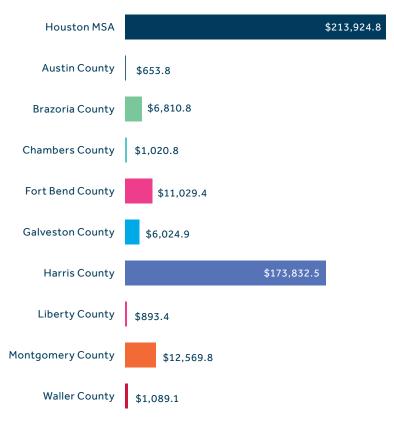
TOTAL PERSONAL INCOME

Total personal income, defined as income received from all sources, in the nine-county Houston MSA in '20 was \$428.5 billion, up 3.0 percent from '19, according to BEA data.

Wages

The average weekly wage in metro Houston was \$1,394 in '21, according to the Texas Workforce Commission. Total wages for the metro area were \$213.9 billion for the same period.

TOTAL WAGES Metro Houston, 2021* (\$ Millions)



*Note: Four quarters ending Q4/21. Sums may not total due to rounding. Source: Texas Workforce Commission, Quarterly Census of Employment and Wages



METRO EMPLOYMENT BY OCCUPATION Houston MSA, 2021

	EM	IPLOYMENT	PERCENT OF TOTAL			EMPLOYMENT	PERCENT OF TOTAL
	Office and Administrative Support	382,850	13.2	4	Healthcare Support	115,190	4.0
	Sales and Related	277,880	9.6	P	Building and Grounds Cleaning and Maintenance	83,900	2.9
(<u>-</u>)	Transportation and Material Moving	268,590	9.3		Computer and Mathematica	78,490	2.7
	Food Preparation and Serving Related	249,470	8.6		Architecture and Engineering	73,940	2.6
	Management	195,950	6.8		Protective Service	70,770	2.4
	Education, Training, and Library	176,720	6.1		Personal Care and Service	44,410	1.5
	Production	164,580	5.7		Community and Social Service	28,980	1.0
	Business and Financial Operations	163,900	5.7		Life, Physical, and Social Science	28,950	1.0
39	Healthcare Practitioners and Technical	161,800	5.6		Arts, Design, Entertainment Sports, and Media	24,340	0.8
	Construction and Extraction	154,290	5.3	ÐĨĠ	Legal	22,270	0.8
J~	Installation, Maintenance and Repair	127,450	4.4		Farming, Fishing, and Forestry	1,870	0.1
TOTAL OCCUPATIONAL EMPLOYMENT 2,897,040 100%							

 $Source: U.S.\ Department\ of\ Labor,\ Bureau\ of\ Labor\ Statistics,\ 2021\ Occupational\ Employment\ Statistics$



Houston has returned to pre-pandemic employment levels. Nonfarm payroll employment topped 3.2 million in July '22. That's 59,000 above the previous employment record set in November '19.

The recovery has been uneven though. Twelve sectors have fully recovered their pandemic losses: administrative support; arts, entertainment, and recreation: construction: educational services: finance and insurance; government; health care; professional, scientific, and technical services; restaurants and bars; retail; transportation and warehousing; and wholesale trade. At their current pace of growth, real estate and equipment rentals; information; hotels; and other services should recover their remaining losses by October '22.

Two sectors were still struggling as of mid-'22. Manufacturing remained 6,600 jobs below pre-pandemic levels and energy 7,600 jobs below. The bulk of the manufacturing jobs still to be recouped are in oil field equipment manufacturing. They won't return without a significant increase in drilling activity. As of mid-August, the U.S. rig count had yet to return to where it stood in February '20. Though energy companies reported record profits in Q2/22, they are reluctant to significantly expand their payrolls. Instead, they are repurchasing shares, paying dividends, funding alternative energy efforts, and marginally increasing exploration programs.

Half a dozen factors have driven the recovery.

A strong U.S. economy: In the 12 months ending July '22, the nation has added an average of 500,000 jobs each month and nearly 6.2 million for the year. Nationwide, retail

sales surged 58.7 percent (adjusted for inflation) between April '20, the lowest point of the COVID-induced recession, and July '22, the most recent data available. Further, U.S. industrial production in mid-'22 was at an all-time high.

Record local exports: Houston firms shipped \$140.8 billion in products overseas in '21, up 9.3 percent from the previous record (\$128.7 billion) set in '19. In Q1/22, Houston exports topped \$44.4 billion, a quarterly record for the region.

Houston's emergence as a logistics center: Developers have added over 100 million square feet of warehouse space since '16. The Port of Houston handled a million more shipping containers in '21 than it did in '16. And the Port is on track to handle well over 3.0 million loaded containers in '22, which would be another record for the region.

A robust construction boom: Over \$21.7 billion in construction contracts were awarded in Houston in '21. This included 41,000 new single-family homes, 19,000 new apartment units, and over 20 million square feet of warehouse/industrial space.

Population Growth: Nearly 32,000 people moved to Houston between

July '20 and July '21. The region ranked fifth in net in-migration over the period. Metro Houston's population is expected to surpass 8.0 million and payroll employment to approach 4.0 million by the end of the decade.

Corporate Economy

Metro Houston, a major corporate center, ranks third in the nation in Fortune 500 headquarters. Many other Fortune firms maintain U.S. offices in Houston.

The 23 Houston companies on the Forbes Global 2000 list that are headquartered in Houston have a combined total revenue of \$490.8 billion.

The Texas Workforce Commission reports that Metro Houston was home to more than 174,000 establishments in '21. The three industries with the most establishments were professional, scientific, and technical services; health care and social assistance; and retail trade. These three industries comprised 38.4 percent of the region's business establishments. Over half of the metro area's establishments employ between one and four workers.

METRO HOUSTON EMPLOYMENT



Source: Texas Workforce Commission

ESTABLISHMENTS BY INDUSTRY Houston MSA, Q4/21

INDUSTRY	ESTABLISHMENTS	% OF TOTAL
Professional, Scientific, and Technical Services	25,791	14.8
Health Care and Social Assistance	21,921	12.6
Retail Trade	19,279	11.1
Other Services (except Public Administration)	15,455	8.9
Accommodation and Food Services	14,088	8.1
Construction	12,421	7.1
Wholesale Trade	11,264	6.5
Finance and Insurance	10,050	5.8
Administrative and Support and Waste Management and Remediation Services	9,508	5.5
Real Estate and Rental and Leasing	8,966	5.1
Manufacturing	6,922	4.0
Transportation and Warehousing	5,692	3.3
Educational Services	2,361	1.4
Information	2,149	1.2
Arts, Entertainment, and Recreation	1,903	1.1
Mining, Quarrying, and Oil and Gas Extraction	1,805	1.0
Unclassified	1,595	1.1
Management of Companies and Enterprises	949	0.5
Public Administration	714	0.4
Agriculture, Forestry, Fishing and Hunting	624	0.4
Utilities	553	0.3
TOTAL	174,374	100

Note: Four quarters ending Q4/2021. Sums may not total due to rounding.

Source: Texas Workforce Commission



International Business

Houston is the base of operations for the international oil and gas exploration and production industry as well as for many of the nation's largest international engineering and construction firms.

A key center for international finance, Houston leads the Southwest U.S. with 16 foreign banks from 9 nations.

Houston's economy is deeply tied to global trade and foreign investment. The region has trading relationships with more than 200 countries. The Houston/Galveston Customs District handled 269.4 million metric tons in exports valued at \$170.4 billion in '21, according to WISERTrade. These exports accounted for 65.4 percent of the value of total trade that passed through the region in '21.

Eighty-seven nations have consular representation in the city, ranking Houston's consular corps third largest in the nation, tied with Chicago.

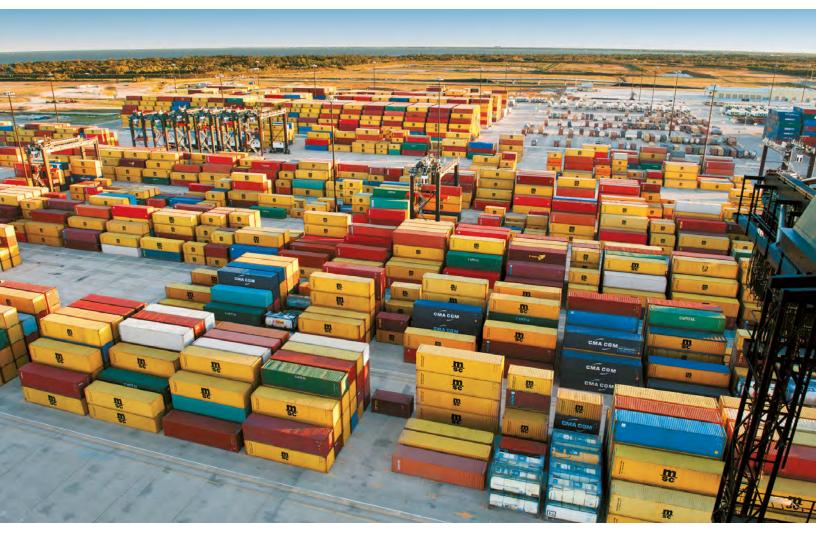
Fifteen foreign governments maintain trade and commercial offices here, and the city has 39 active foreign chambers of commerce and trade associations.

Houston has 19 sister-city relationships promoting business opportunities across five continents: Asia (8), Europe (7), Americas (2), Africa (1), and Oceania (1). Houston's oldest sistercity relationship was established in 1961 with Taipei, Taiwan, and its most recent relationship with Ulsan, South Korea was established in '21.

140 Houston firms operate 2,955 subsidiary locations across 108

foreign countries. These subsidiary locations represent branch offices (58%), service centers (16%), retail or sales locations (17%), manufacturing or distribution facilities (6%), or other types of operations.

More than 1,700 firms in Houston report foreign ownership. Since '09, more than 450 foreign-owned firms have announced over 700 projects in metro Houston, according to the Partnership's New Business Announcements database. The parent companies are from 38 countries. Those projects stretch across 65 industries and represent \$36.4 billion in capital investments. That's likely an underestimate since many firms did not disclose the value of their investments.



Houston's Top Employers

OVER 20,000 EMPLOYEES

H-E-B

Houston Methodist

Memorial Hermann Health System

UT MD Anderson Cancer Center

Walmart

10,000 TO 19,999 EMPLOYEES

CHI St. Luke's Health

ExxonMobil

HCA Houston Healthcare

Kroger

Schlumberger

Texas Children's Hospital

University of Houston

UT Health Science Center

UT Medical Branch Health System

Wood Group

5,000 TO 9,999 EMPLOYEES

AT&T

Baker Hughes

Baylor College of Medicine

BP America

Chevron

Daikin/Goodman

Dow Chemical Co.

Fiesta Mart

Harris Health System

Home Depot

Houston Community College

JPMorgan Chase

Landry's

Lone Star College

LyondellBasell

Michael E. DeBakey VA Medical

Center

NOV

Occidental Petroleum

Shell Oil Co.

Target

Texas A&M University

United Airlines

Walgreens

2,000 TO 4,999 EMPLOYEES

Academy Sports & Outdoors

Accenture

Air Liquide USA

Ascend Performance Materials

Austin Industrial Inc.
Bank of America

Bechtel Corp.

Brinker International

CenterPoint Energy

Chevron Phillips Chemical Co.

Comcast

Boeina

ConocoPhillips

CVS Health

Deloitte Enterprise Products Partners

ΕY

FedEx

Fluor Corp.

The Friedkin Group, Inc.

Grocers Supply Company

Group 1 Automotive

Halliburton

Hewlett Packard Enterprise

HP Inc. Jacobs

KBR

Kelsey-Seybold Clinic

Kinder Morgan Lowe's Cos.

Macy's

Matuana

Metropolitan Transit Authority NASA - Johnson Space Center

NRG

Phillips 66

Randalls

Rice University

S&B Engineers and Constructors

Sam's Club

Sam Houston State University

San Jacinto Community College

Sysco Corp.

TechnipFMC

Texas Home Health

Turner Industries

Universal Plant Services

Weatherford International Ltd.

Wells Fargo

Note: The list includes only private sector employers, except for Texas Medical Center institutions and institutions of higher education, and excludes fast-food chains.

Source: Greater Houston Partnership Research, April 2022.



AND SECTORS

Construction and Real Estate

EMPLOYMENT

The construction industry in Houston employed 217,453 people in Q4/21, according to the Texas Workforce Commission. Specialty trade contractors (e.g., electrical work, plumbing, site preparation, painting) made up half (50.6 percent) of all construction employment. Building construction and heavy and civil engineering, accounted for 26.0 percent and 23.4 percent of construction employment, respectively. The average annual wage was \$79,391.

ESTABLISHMENTS

The Houston metro area was home to nearly 11,779 construction establishments in Q4/21. Of that total, 60.3 percent were specialty trade contractors, 30.7 percent were in building construction, and 9.6 percent were heavy and civil engineering construction establishments.

MAJOR EMPLOYERS

Alston, Anslow Bryant, Arch-Con, Austin Industrial, Bartlett Cocke, Bechtel, Bellows, Brookstone, Burns

& McDonnell, Burton, D.E. Harvey Builders, Durotech, E.E. Reed Construction, Flintco, Fluor, Gamma, Gilbane, Harvey Construction, Hoar, Humphries Construction, Kilgore Industries, Linbeck Group, Manhattan Construction, McCarthy Building Companies, McDermott, O'Donnell/ Snider, Performance Contractors, Ref-Chem, Rosenberger, S & B Engineers and Constructors, Satterfield & Pontikes, Skanska, SpawGlass, Summit Industrial, Tellepsen, Turner Construction, Vaughn Construction, Webber, Williams Brothers Construction, Worley and Zachry.

BUILDING PERMITS

City of Houston building permits totaled \$5.9 billion in '21, down from \$6.5 billion in '20, with over \$2.8 billion for residential and over \$3.1 billion for commercial building permits, according to city data.

OFFICE

The Houston office market had 244.8 million square feet (msf) of space at the end of '21, according to NAI Partners. The three largest submarkets were the Central Business District (40.8 msf), Galleria/West Loop (30.1 msf), and the Energy Corridor (20.1 msf).

Net absorption (net change in leased space in completed buildings) for all general-purpose office space was negative 1.6 million square-feet in '21. The overall vacancy rate for the Houston market was 25.0 percent at the end of '21.

Average asking rent for Class A office space was \$29.21 per square foot, down from \$29.87 at the end of '20.

INDUSTRIAL

Houston had 668.1 million square feet (msf) of industrial/warehouse space at the end of '21, a jump of nearly 20.1 msf from the year before, according to NAI Partners. The overall vacancy rate slipped from 8.5 percent at the end of '20 to 7.0 percent at the end of '21. In Q4/21, 16.8 msf was under construction. Net absorption for '21 was strong with a total of 28.5 msf. Across the market, average monthly asking rates were \$0.64 per square foot in the fourth quarter of '21.

RETAIL

The Houston market contained 374.2 million square feet (msf) of retail space at the end of '21, according to NAI Partners. The market absorbed 5.3 msf that year. '21 ended with a 5.9 percent vacancy rate, down from 6.5 percent at the end of '20. The average asking rent on a triple net basis was \$19.13 per square foot in Q4/21, up from \$18.34 in Q4/20.

SINGLE-FAMILY

In '21, residential real estate set records for total sales, average prices and median prices. Single-family closings totaled 106,119. Townhome, condo, and high-rise closings totaled 9,851, according to the Houston Association of Realtors. The median sales price for a resale single-family detached home at the end of '21 was \$319,000. The average price was \$376,075. Single-family starts in '21 numbered 41,536, according to Zonda.

MULTI-FAMILY

Apartment Data Services reported that Houston area multi-family occupancy was 91.5 percent at the end of '21, with an inventory of 707,620 units. Average rent for Class A apartments was \$1,661; Class B rents averaged \$1,181.

An additional 19,594 new units were added to the market in '21, a slight dip from the 22,387 added in '20. The market absorbed 38,272 units, up from 11,922 absorbed in '20 and a record for the region. As of July '22, there

were 15,287 units in 59 apartment communities under construction with another 35,200 proposed, according to Apartment Data Services.

SINGLE-FAMILY STARTS AND MULTI-FAMILY UNITS DELIVERED - Houston MSA



Health Care and Social Assistance

EMPLOYMENT

Health care and social assistance employed 394,533 at the end of '21, one in eight Houston workers, according to the Texas Workforce Commission. Ambulatory health care accounted for 45.3 percent of the sector employment, hospitals for 32.5 percent and social assistance, nursing and residential care account for 22.1 percent. The average annual wage for the industry was \$69,212 in '21.

According to the Texas Medical Board, 20,280 physicians are licensed in the Houston region, with Harris County accounting for nearly 80.0 percent. The concentration of anesthesiologists, nurse anesthetists, surgeons, cardiovascular technologists and technicians, pediatricians, dentists, and occupational health and safety specialists/technicians is well above the national average.

ESTABLISHMENTS

Houston's 21,921 health care and social assistance establishments included 14,456 ambulatory health care providers, 6,386 social assistance establishments, 835 nursing and residential care facilities and 244 hospitals.

MAJOR EMPLOYERS

Baylor College of Medicine, CHI St. Luke's, HCA Houston Healthcare, Harris Health System, Houston Methodist, Kelsey-Seybold Clinic, Kindred Healthcare, MD Anderson Cancer Center, Memorial Hermann Healthcare System, Michael E. DeBakey Veterans Affairs Medical Center, St. Joseph Medical Center, Tenet Health, Texas Children's Hospital, UTMB Health, Texas A&M Health Science Center, University of Texas Health Science Center.

TEXAS MEDICAL CENTER

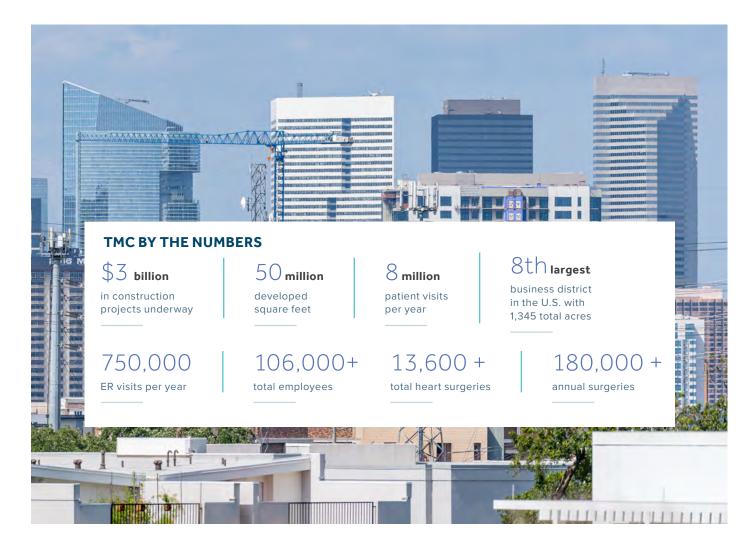
Houston's Texas Medical Center is the world's largest medical complex by several measures: number of hospitals, number of physicians, square footage and patient volume. The Texas Medical Center's 63 member institutions are consistently recognized by U.S. News and World Report as some of the best hospitals and universities in the nation.

Scientists at TMC-affiliated institutions, most notably Baylor College of Medicine, Houston Methodist, and MD Anderson, are advancing life science breakthroughs across dozens of research centers and more than 300 research laboratories.

In early '21, the University of Houston College of Medicine, Houston's first new medical school in nearly 50 years, became the TMC's 63rd member institution. The school, founded with a mission to improve health in underserved communities, joins four existing TMC-affiliated medical schools: University of Texas Health

Science Center at Houston, Baylor College of Medicine, University of Texas Medical Branch at Galveston and Texas A&M College of Medicine.

In '21, construction began on TMC3, a multi-institutional 37-acre research campus designed to foster collaboration in clinical care, research and industry. The project is a joint venture between four founding institutions: MD Anderson, UTHealth, Texas A&M Health Science Center and TMC. It is projected to create over 26,540 permanent jobs and bring \$5.4 billion annually to Texas' economy. The "3" in TMC3 is meant to designate Houston as the "third coast" for life sciences.



Manufacturing

The 6,922 manufacturing establishments in the Houston region employed 214,772, or about 1 in 13 Houston-area workers in '21, according to the Texas Workforce Commission. The average annual wage was \$98,072. The value of goods manufactured in metro Houston topped \$70.3 billion in '20 and accounted for 14.4 percent of the region's total GDP, according to the Bureau of Economic Analysis.

CHEMICALS

The Houston region was home to 640 chemical plants employing 39,324, or 18.3 percent of Greater Houston's total manufacturing workforce in '21, according to the Texas Workforce

Commission. The region has 44.0 percent of the nation's overall base petrochemicals manufacturing capacity which includes 58.9 percent of butadiene produced in the country, 44.5 percent of ethylene, 45.8 percent of propylene, 40.2 percent of benzene, 40.0 percent of xylenes and 35.6 percent of toluene.

Base petrochemicals are the raw materials for producing some of the more important plastics and resins. The Houston MSA also dominates U.S. production of three major resins, producing 51.6 percent of the country's polypropylene, 41.7 percent of polyethylene and 30.6 percent of polyvinyl chloride.

MANUFACTURING OVERVIEW Houston MSA, 2021

Fabricated Metal Products

45,411 jobs 1,748 establishments

Machinery

38,929 jobs 834 establishments

Chemical

39,324 jobs **640** establishments

Other Manufacturing

25,430 jobs **1,687** establishments

Computer and Electronic Products

12,671 jobs **367** establishments

Food, Beverages, Tobacco

16,606 jobs **634** establishments

Plastics and Rubber Products

10,855 jobs **240** establishments

Petroleum and Coal Products

7,853 jobs **89** establishments

Nonmetallic Mineral Products

6,943 jobs **295** establishments

Electrical Equipment and Appliances

5,878 jobs 188 establishments

Transportation Equipment

3,368 jobs **132** establishments

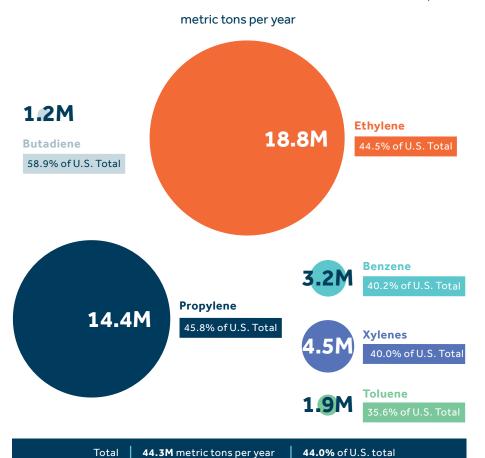
Total Manufacturing

214,772 jobs **6,922** establishments

Source: Texas Workforce Commission, Quarterly Census of Employment and Wages, Q4/21.

Source: IHS Markit

BASE CHEMICAL PRODUCTION CAPACITY Houston MSA, 2021



Note: Sums may not total due to rounding.

PETROLEUM REFINING

The Spaghetti Bowl is a complex of several thousand miles of product pipeline connecting hundreds of chemical plants, refineries, salt domes and fractionation plants along the Texas Gulf Coast. It gives the Houston area an economic advantage through

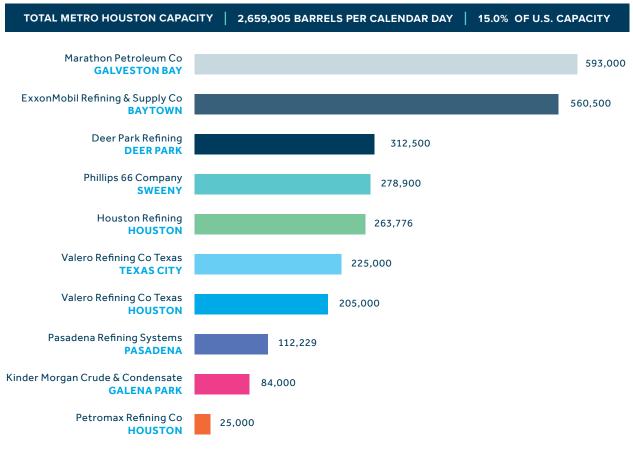
convenient and low-cost transfer of feedstocks, fuel and chemical products among plants, storage terminals and transportation facilities.

In '21, the Houston metro had a crude operating capacity of 2.7 million barrels of refined petroleum products per calendar day,

representing 15.0 percent of overall U.S. capacity, according to the U.S. Energy Information Administration. Oil refiners in the region employed 7,853 in '21, equivalent to 3.7 percent of the Houston region's total manufacturing workforce.



PETROLEUM REFINING CAPACITY Metro Houston, 2021



Source: U.S. Energy Information Agency, Refinery Capacity Report January 1, 2022

Professional and Technical Services

EMPLOYMENT

Metro Houston employed 234,850 professional, scientific and technical service workers in Q4/21. Architectural and engineering, with 65,746 workers, represents just over one-fourth of the sector's total employment. The second and third largest industry subsectors include management and technical consulting (43,772 employees) and computer systems design services (35,252 employees).

Houston has 49,260 engineers of all disciplines, the most numerous being civil, mechanical, petroleum, industrial, electrical and chemical. Houston has one of the highest concentrations of engineering talent in the nation. For every 100,000 workers in the Houston MSA, there

are 1,700.3 engineers. By comparison, for every 100,000 workers in the U.S., there are 1,147.9 engineers.

ESTABLISHMENTS

The Houston MSA had 25,791 establishments in professional, scientific and technical services at the end of '21. The sector includes 6,432 management and technical consulting establishments, 5,045 computer systems design companies and 4,168 establishments that provide legal services. Seven of the nation's top 20 engineering and design firms are located in metro Houston, according to Engineering News-Record.

FINANCE

Metro Houston's 95 Federal Deposit Insurance Corporation (FDIC)-insured institutions had 1,411 offices and branches with \$333.7 billion in local deposits, according to June '20 FDIC data. Houston ranked 11th among U.S. metros in total deposits in '21.

Houston's 10 largest banks in terms of deposits are Allegiance Bank, Amegy, Bank of America, Cadence Bank, Capital One, Comerica Bank, Frost Bank, JP Morgan Chase, Prosperity Bank, Wells Fargo, and Woodforest National Bank.

Six of the nation's 10 largest FDIC-insured banks, as measured by domestic deposits, operate full-service branches or commercial loan offices in the Houston region. These six include four of the largest banks in the nation.

ENGINEERS Houston MSA vs. U.S., 2021

TOTAL	HOUSTON	PER 100,000	WORKERS
TOTAL	ENGINEERS	HOUSTON	U.S.
Aerospace	1,500	51.8	40.2
Biomedical	230	7.9	12.2
Chemical	3,890	134.3	17.2
Civil	9,930	342.8	216.0
Computer Hardware	740	25.5	52.3
Electrical	4,180	144.3	132.0
Electronics	1,690	58.3	76.1
Environmental	910	31.4	30.3
Health and Safety	990	34.2	16.2
Industrial	6,470	223.3	208.6
Marine Engineers and Naval Architects	160	5.5	5.2
Materials	610	21.1	15.3
Mechanical	8,480	292.7	197.5
Mining and Geological	500	17.3	5.2
Petroleum	5,850	201.9	15.7
All Other Engineers	3,130	108.0	107.8
TOTAL	49,260	1,700.3	1,147.9

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2021

Wholesale and Retail Trade

EMPLOYMENT

Wholesale trade employed 154,389 in the Houston MSA, including 95,340 in durable goods, 49,121 in nondurable goods, and 9,928 in electronic markets in '21. Retail trade employed 314,558, including 70,340 in food and beverage, 64,977 in general merchandise and 42,120 in motor vehicle and part dealers. The average wage in '21 was \$103,428 for wholesale workers and \$42,380 for retail workers.

ESTABLISHMENTS

Metro Houston had 11,264 wholesale trade establishments, including 6,759 durable goods wholesalers and 2,599 nondurable goods wholesalers in '21. There were 19,279 retail establishments, including 2,866 food and beverage stores, 2,616 gas stations, 2,179 motor vehicle and parts dealers, 2,129 clothing stores and 1,193 general merchandise stores.

LARGEST EMPLOYERS

Academy Sports & Outdoors, Ace Hardware, Aldi, Barnes & Noble, Best Buy, Costco, CVS Health, Dillards, Dollar Tree, Fiesta Mart, Gallery Furniture, H-E-B, Home Depot, Kohl's, Kroger, Lewis Food Town, Lowe's, Macy's, Mattress Firm, Men's Warehouse, O'Reilly Auto Parts, Randalls, Ross Stores, Sam's Club, Sysco, Target, TJ Max, Walmart and Walgreens.

GROSS RETAIL SALES Metro Houston, 12 Months Ending September 30 (\$ Millions)

GEOGRAPHY	'21	'20	% CHANGE FROM '20
Houston MSA	126,573.6	118,619.2	+6.7%
Austin County	341.4	328.6	+3.9%
Brazoria County	4,824.1	4,346.5	+11.0%
Chambers County	507.6	527.0	-3.7%
Fort Bend County	9,689.3	8,935.5	+8.5%
Galveston County	4,714.9	4,374.3	+7.8%
Harris County	95,656.7	89,454.3	+6.9%
Liberty County	857.2	902.2	-5.0%
Montgomery County	9,442.9	9,185.1	+2.8%
Waller County	530.5	556.2	-6.1%

Source: Texas Comptroller's Office



Energy

Houston is the leading domestic and international center for virtually every segment of the energy industry—exploration and production, transmission, marketing, service, trading, supply, offshore drilling and technology.

More than 4,730 energy-related firms are located within the Houston metro area, including over 450 exploration and production firms, 750 oilfield service companies, nearly 90 pipeline transportation firms, and hundreds of manufacturers and wholesalers of energy-sector products.

Houston is home to 40 of the nation's 86 publicly traded oil and gas exploration and production firms, including eight of the top 25; four more among the top 25 have subsidiaries, major divisions or other significant operations in Houston.

Two-thirds of the global-integrated oil companies (e.g., ExxonMobil, Shell, Chevron) have operations here. More than half of all oil field service firms based outside of North America (e.g. ENI, TechnipFMC, Transocean) have offices in Houston, and around one-fifth of the world's national oil companies (e.g., Saudi Aramco, PetroChina, Gazprom) have operations in Houston.

The 10 refineries in the Houston region process 2.7 million barrels of crude oil per calendar day—approximately 45.4 percent of the state's total capacity and 15.0 percent of total U.S. capacity.

The logistics for moving much of the nation's petroleum and natural gas across the country are controlled from Houston. Thirteen of the nation's 20 largest oil pipeline operators have corporate or divisional headquarters or ownership interests based in Houston. These 13 pipeline companies control 60,964 miles, or 34.2 percent of all U.S. oil pipeline capacity. Seventeen of the nation's top 20 natural gas transmission companies have corporate or divisional headquarters in Houston, controlling 102,851 miles of U.S. pipeline, which is 52.9 percent of the total U.S. natural gas pipeline capacity.

In June '22, the Houston MSA held 23.8 percent of the nation's jobs in oil and gas extraction (33,400 of 140,200) 17.0 percent of jobs in oil field services (33,600 of 198,100), and 9.6 percent of jobs in manufacturing of agricultural, construction and mining equipment (20,400 of 212,000), according to the U.S. Bureau of Labor Statistics.

DEFINING "ENERGY"

Defining the "energy" sector and its related industries is a challenging task. There are multiple approaches and the table which follows serves as one interpretation. Given this definition, Houston's energy sector in '21 accounted for 6.9 percent of the region's employment and 3.3 percent of its firms. The typical job in an energy-related industry paid \$139,916 per year on average, nearly double the metro average of \$72,448.

MAJOR ENERGY-RELATED EMPLOYERS

Apache

Baker Hughes

BP North America

CenterPoint Energy

Cheniere Energy

Chevron

CITGO

ConocoPhillips

Direct Energy

Dril-Quip

Enbridge

Enterprise Products

EOG Resources

Flotek Industries

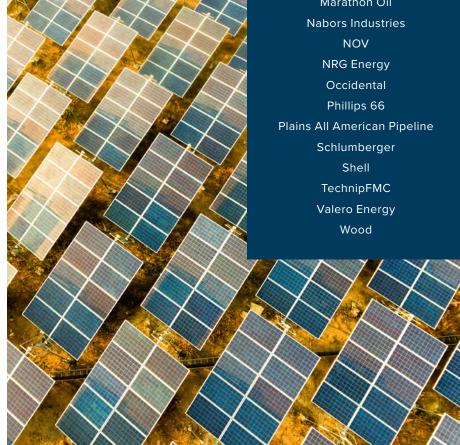
ExxonMobil

Halliburton

Hess Corp.

Kinder Morgan

Marathon Oil



ENERGY-RELATED SECTORS Houston MSA, 2021*

INDUSTRY	EMPLOYMENT	FIRMS	AVG. ANNUAL WAGE (\$)
Engineering services	44,581	1,945	149,396
Chemical manufacturing	39,323	495	140,296
Oil and gas extraction	28,448	452	235,716
Support activities for oil and gas	22,242	758	139,932
Oil and gas field machinery	19,324	244	131,144
Oil and gas pipeline construction	19,102	216	103,740
Pipeline transportation	12,225	88	170,300
Petroleum refineries	7,066	41	158,600
Drilling oil and gas wells	6,939	127	148,928
Fabricated pipe and pipe fitting mfg.	4,568	92	82,420
Industrial valve manufacturing	3,656	82	101,400
Geophysical surveying and mapping	2,491	145	146,172
Pump and compressor manufacturing	1,462	51	110,184
TOTAL ENERGY-RELATED	211,427	4,736	139,916
SHARE OF METRO HOUSTON TOTAL	6.9%	3.3%	

Note: Due to the reach of the energy industry in Houston, portions of several other industries (e.g., utilities, accounting, real estate) could be added to this definition.

Source: Texas Workforce Commission, Quarterly Census of Employment and Wages

NEW ENERGY

In June '20, the Greater Houston Partnership released its blueprint for leading the transition from traditional fuel sources to low-carbon and no-carbon energy. Titled "Houston, Leading the Transition to a Low-Carbon World," the report begins with four key points:

- Energy has been very good to Houston, powering economic growth for over a century,
- Oil and gas production and consumption will not disappear, even in a net-zero emissions world,
- The traditional oil and gas industry won't drive Houston's growth as it has in the past, and
- Houston has an opportunity and a responsibility to lead the global transition to a low-carbon energy system.

There's a great deal at stake for Houston. As the energy industry becomes more efficient at finding and producing oil and gas, it will continue to shed jobs. Houston has lost nearly 90,000 energy jobs in the past eight years. That doesn't include the indirect jobs, those created by the household spending of the oil and gas workers.

If the region continues to do business as usual, the economy will continue to contract, with Houston losing another 270,000 jobs over the next 30 years, according to estimates by McKinsey & Co. Conversely, the number of jobs in Houston could increase by 370,000 if the world accelerates the energy transition, or 650,000 jobs if the world takes the aggressive 1.5C pathway to cut emissions.

But the region is well positioned to lead the transition. The plan notes Houston has a large, diverse, and technically oriented workforce. It has the most highly developed energy infrastructure in the nation. A large and expanding renewable generation capacity is already in place. The local culture supports innovation and growth. And the region's extensive port, rail and aviation infrastructure offer a platform for large-scale decarbonization initiatives.

The strategy sets out three initial objectives for the region: jumpstarting emerging technologies and markets where Houston has a strategic advantage, attracting and supporting companies in established yet rapidly growing "New Energy" industries, and creating an environment that encourages investment in and deployment of a wide range of value chains. The latter includes everything from nature-based solutions, to cleaner production of natural gas, oil, and petrochemicals, to breakthroughs in energy efficiency, geothermal energy, and advanced materials.

^{*}Four quarters ending Q4/21

NASA and Aerospace

NASA's Johnson Space Center (JSC), located 25 miles southeast of downtown Houston, has served as mission control for U.S. space exploration and astronaut training since 1961. JSC currently serves as mission control for America's human space program aboard the International Space Station (ISS). JSC personnel develop, build, and upgrade piloted spacecraft and oversee many of the medical and scientific experiments conducted in space.

JSC, a \$1.5 billion complex established in 1961, occupies 1,620 acres and is one of NASA's largest R&D facilities.
JSC managed an annual budget of \$5.65 billion in '21 and generated more than \$8.7 billion in economic output in Texas. JSC'S largest contractors in '21 included Boeing, Lockheed Martin, and Northrop Grumman. NASA supports nearly 4,000 civil and contract workers.
Space Center Houston, the official visitor center of JSC, employs approximately 180 workers.

In '20, NASA began to accept applications for future astronauts for the first time in four years. All astronauts undergo training at JSC, and the call for more astronauts coincides with NASA's preparations to send the first woman and person of color to the moon with the Artemis program. JSC is home to NASA's Astronaut Corps and is the primary training site for astronauts from the original Gemini and Apollo

programs to the contemporary ISS Expedition crews.

In May '20, the first commercially built and operated American crew spacecraft launched from the U.S., taking two astronauts, Robert Behnken and Douglas Hurley, to the ISS. It was the first launch from American soil since the last Space Shuttle mission in '11. SpaceX controlled the Falcon 9 rocket, and NASA monitored the launch, flight, and space station docking operation from mission control at JSC. When Behnken and Hurley returned two months later, it marked the first splashdown of American astronauts in 45 Years.

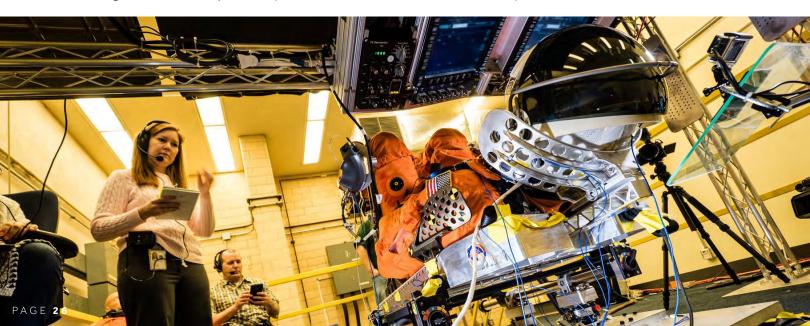
In November '20, NASA celebrated the 20th anniversary of the ISS. Over the past 20 years, the ISS has hosted 241 astronauts from 18 countries. More than 3.5 million photos of Earth have been captured since the first ISS expedition. JSC serves as the lead NASA center for the ISS and even has a replica of the space station on the JSC campus for training purposes.

Construction on laboratories for NASA's Astromaterials Research and Exploration division are underway at JSC. The laboratories will house astromaterials (samples from the Moon, Mars, asteroids, comets, etc.) brought to Earth by the Mars Curiosity Rover, OSIRIS-REx, and other spacecraft.

Houston is home to over 350 companies involved in aircraft or space vehicle manufacturing, research and technology or other air transportation support activities. Of the 50 largest aerospace manufacturing companies in the U.S., 10 have a presence in the Houston region.

Houston's trade in aircraft, spacecraft, and parts totaled \$1.3 billion in '21, and aircraft, spacecraft, and parts were Houston's 13th largest internationally traded commodity.

Ellington Airport, located 18 miles southeast of downtown Houston, became a Federal Aviation Administration (FAA) designated spaceport in '15. One of only 10 spaceports in the U.S., the project is intended to help attract aerospace companies. Three new facilities were under construction at the Houston Spaceport in mid-'22. Axiom Space broke ground on Phase I of its 22acre campus. This campus will be used to train future astronauts and develop a commercial space station. Houston-based Intuitive Machines broke ground on its 12.5-acre campus. Intuitive will build lunar landers, operate its mission control center, and make guidance, navigation, and control products at its site. And construction was underway on Collins Aerospace's eight-acre campus where it will develop systems for NASA's human spaceflight programs.



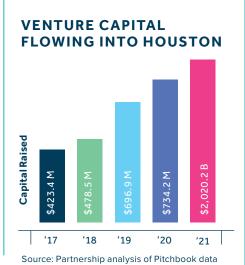
Innovation

Houston is a thriving hub of digital tech talent, with more than 243,400 tech workers representing 7.9 percent of the region's workforce, according to an analysis by the Greater Houston Partnership.

Houston is home to 8,800 tech-related firms, including more than 800 venture-backed startups. These companies have received \$4.35 billion in venture capital funding over the last five years including \$2.02 billion in '21, a record high for the region, according to the financial database Pitchbook.

In '21, the most heavily invested industry for VC funding in Houston was information technology, which received \$632.1 million across 64 deals. Health care followed, with

\$518.4 across 67 deals. Materials and resources came in third, with \$426.5 million in funding.





HOUSTON VENTURE CAPITAL FUNDING (\$ MILLIONS)



Source: Partnership Analysis of PitchBook data

TECH EMPLOYERS

Several tech companies are among Houston's largest employers, including Asurion, AWS, Dell, HighRadius, HP Enterprise, HP Inc., IBM, PROS, BMC Software, Siemens, Honeywell, Oracle, and Microsoft. Houston is also home to at least two dozen VC-backed startups valued over \$100 million. In April '21, investors valued the financial software firm HighRadius at \$3.1 billion, making it the most valuable digital tech startup in Houston.

HOUSTON'S STARTUP ECOSYSTEM

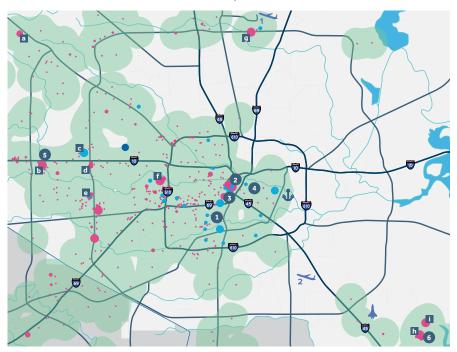
Dozens of startup development organizations (SDOs) have emerged in recent years to facilitate growth across Houston's tech ecosystem. In '22, the region included more than 60 SDOs, including incubators and accelerators, makerspaces, co-working spaces, non-profits, and academic institutions. These organizations have formed a growing web of resources assisting tech entrepreneurs across the Houston region.

INNOVATION CORRIDOR & THE ION

At the nucleus of Houston's tech ecosystem, the Innovation Corridor covers a four-mile expanse across the city's dense urban core. Stretching from Downtown to the Texas Medical Center, the corridor encompasses Houston's major business, academic and innovation centers. Rice University's **The Ion** is a \$100 million tech hub that anchors the Innovation Corridor and the more defined 16-acre Innovation District in Midtown, that is fostering tech entrepreneurship in the region. The 266,000-square foot building includes commercial office space for established tech companies, co-working space for early-stage startups, and 50,000 square feet of common space for events and programming.

COWORKING AND MAKERSPACES

There are nearly 40 co-working spaces offering shareable workspace for startups in the Houston area. Notable co-working spaces include:



MAPLEGEND

TECH EMPLOYERS 9 500 SDOS

SELECTED HOUSTON INNOVATORS



Lockheed i Boeing BMC Software

INFRASTRUCTURE



The Cannon with offices downtown, Galleria/Post Oak and West Houston; Common Desk, with offices in City Place, East End, POST Houston, and Post Oak; CoWork Lab in The Heights; The Ion in the Innovation Corridor; Expansive, with offices downtown and Upper Kirby; SheSpace in The Heights; WeWork in downtown and the Galleria; and Work Lodge with offices in northwest Houston and The Woodlands.

The East End Maker Hub is an industrial makerspace for Houston's manufacturing and fabrication startups. The 300,000-square-foot facility is a collaboration between the Urban Partnerships Community Development Organization and the makerspace TX/RX Labs. The \$37-million expansion project aims to scale manufacturing and hard tech startups and create jobs for Houston's East End residents.

INCUBATORS AND ACCELERATORS

The recent push by Houston leaders to encourage more startup companies has produced a surge of incubator and accelerator activity in Houston. There are at least 30 incubator and accelerator programs operating in Houston. Notable programs include: MassChallenge, Ion Smart Cities Accelerator, Gener8tor, and JLabs.

The energy accelerator Greentown Labs in Midtown provides office space, mentorship and support for early stage companies working on climate change technologies. The Houston office is the first expansion outside of Boston.

TMC Innovation (TMCi) unites promising innovators with the best minds in science and medicine at the member institutions of the Texas Medical Center. Since its inception in '14, the program has accelerated 221 companies that have collectively raised over \$5.2 billion in venture capital funding.

UNIVERSITY PROGRAMS

The Princeton Review consistently ranks the entrepreneurship programs at Rice University and University of Houston as among the nation's best. Rice University's entrepreneurship program at the Jones Graduate School of Business supports student innovation through the Rice Alliance for Technology and Entrepreneurship. The organization sponsors programs involving technology commercialization, entrepreneurship education and the launch of studentrun technology companies. Rice's Owlspark Accelerator has helped launch dozens of companies and the Rice Business Plan Competition is the richest pitch competition in the country, according to the Princeton Review. In '22, the competition awarded nearly \$2.0 million in prizes.

The University of Houston's **Cyvia** and **Melvyn Wolff Center** for Entrepreneurship at the Bauer College of Business aims to teach students how to run their own businesses from the inception of an idea through its implementation. Students with promising concepts are accepted into **Red Labs**, the University of Houston's startup incubator/accelerator

program. At the graduate level, students manage the million-dollar **Cougar Venture Fund**, working with an advisory board of entrepreneurs, angel investors and venture capitalists to analyze and invest in early stage technology companies. The Princeton Review rated the undergraduate program as the best in the nation in '22.

CIVIC INITIATIVES

The **HX Venture Fund** is a \$50 million fund of funds that seeks to transform Houston into a world-leading hub for innovation by linking outside investors to local startups.

HX is one of several non-profit startup development organizations (SDOs) working to grow the innovation ecosystem. Other notable SDOs include: Impact Hub Houston, which fosters startups advancing the United Nation's Sustainable Development Goals; and BioHouston, which convenes the life science sector in Houston.

INDUSTRY BACKING

Historically, oil and gas startups have been the most frequent destination for venture capital and private equity funding in Houston, with investments flowing from outside capital markets and the industry itself. Many of the major oil and gas companies have business units dedicated to finding and funding innovative ideas in the sector. A few of these include: Shell Ventures, Chevron Technology Ventures, ConocoPhillips Technology Exploitation, Aramco Ventures and bp ventures. In '21, Boston-based Greentown Labs, a startup incubator focused on new energy technology, opened a Houston office, its first outside of Boston, to capitalize on synergies with the region's existing energy companies. The 40,000-square-foot incubator has welcomed over 60 members its first 12 months of operation.

Biotech and Life Science

Houston's health care industry includes 161,800 health care practitioners and technical occupations, including 12,250 medical doctors and 58,820 nurses. Another 115,000 Houstonians work in health care support occupations.

As a hub for medical device manufacturing, pharmaceuticals, and health research, the Houston region is home to more than 15,400 life science and biotech researchers. More than 1,992 clinical trials were active in the Houston region in mid-'22, representing 20.7 percent of all trials in the U.S. In '21, Houston medical institutions and life science firms received \$864.1 million in National Institutes of Health (NIH) grant funding, up 16.3 percent from '20.

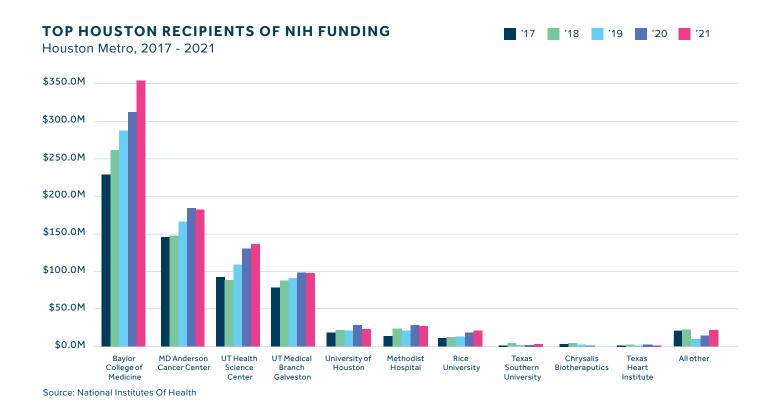
In the last five years, the region received nearly \$3.9 billion in NIH funding, an average of \$740.7 million per year.

TMC Innovation is the epicenter of Houston's life science startup activity. The organization aims to help early stage companies commercialize new medical technologies by providing access to the vast resources of the world's largest medical center.

TMCⁱ Accelerators, formerly TMCx, focuses on early-stage companies making breakthroughs in medical devices, digital health care services, diagnostics and therapeutics. TMC Biodesign unites the talents of innovators with diverse backgrounds to quickly bring breakthrough

products to market. Additionally, the Texas Medical Center launched the **TMC Venture Fund** in '17. The fund has invested in 30 Houston health startups in the last three years.

TMC Innovation partners with several industry-backed programs supporting health innovation. Johnson & Johnson's JLABs @TMC provides lab space and support to companies developing promising technologies in consumer health, medical devices and pharmaceuticals. TMC Innovation is also home to Johnson & Johnson's Center for Device Innovation, a one-of-a-kind medical device prototyping lab.







City of Houston

The City of Houston is a home rule municipality, which provides the city with inherent powers to manage their own affairs with minimal interference from the state.

The city's current elected officials, serving four-year terms, are: the mayor, Sylvester Turner; the city

controller, Chris B. Brown; and the 16 members of City Council. Eleven council members are elected from single-member districts and five are elected citywide or "at-large." City of Houston elected officials can serve no more than two terms of four years each.

The city's proposed General Fund budget for fiscal year (FY) '23 is \$2.74 billion. Property taxes account for 46.9 percent of revenues (\$1.279 billion), sales taxes for 29.5 percent (\$806.9 million) and intergovernmental transfers for 8.0 percent (\$217.8 million).

Metro Area Counties

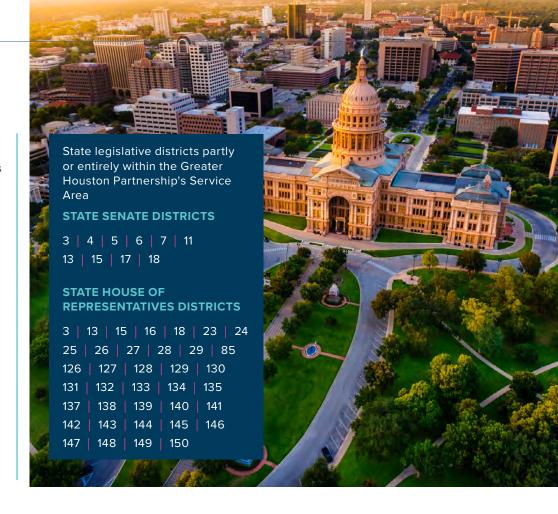
Each county in Texas is run by a five-member Commissioners Court consisting of four commissioners elected from single-member districts, called commissioner precincts, and a county judge elected "atlarge" or countywide. The county commissioners and county judge serve staggered four-year terms and are not term-limited. The Commissioners Court of Harris County, which overlaps the City of Houston, has Judge Lina Hidalgo in addition to its four precinct commissioners. The county's General Fund budget for fiscal year '22 is \$3.338 billion. Property taxes account for over 75 percent of county revenues.



Texas Government

The chief executive of the State of Texas is the governor. Other elected officials with executive responsibilities include the lieutenant governor, attorney general, comptroller of public accounts, commissioner of the General Land Office, commissioner of agriculture and the railroad commissioner. These elected offices have a term of four years.

The Texas Legislature has 181 members: 31 in the State Senate, who are elected to four-year overlapping terms, and 150 in the State House of Representatives, who are elected to two-year terms. Regular sessions of the state legislature convene on the second Tuesday of January in odd-numbered years. The Texas Constitution limits the regular session to 140 calendar days; however, the governor may call a special 30-day session.



Local Council of Governments

The Houston-Galveston Area Council (H-GAC) is a regional council of governments in the 13-county Gulf Coast planning region. Organized in 1966, H-GAC is overseen by 36 elected officials that represent 13 counties (Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Harris, Liberty,

Matagorda, Montgomery, Walker, Waller, and Wharton), 177 cities and 84 school districts.

H-GAC's regional programs focus on community and environmental planning, data tools and resources, disaster planning and recovery, transportation planning, public

safety, workforce, and economic development. As one of the country's largest council of governments, H-GAC provides a forum for jurisdictions of all sizes to solve regional issues; identifies and prioritizes funding opportunities; and helps analyze trends and conditions affecting the region.

U.S. Congress

U.S. House of Representatives legislative districts partly or entirely within the Greater Houston Partnership's service area:

District 2 | Harris County

District 17 Matagorda and Wharton Counties

District 7 | Harris County

District 18 | Harris County

District 8 | Harris and Montgomery Counties

District 22 | Brazoria and Fort Bend Counties

District 9 Brazoria and Harris Counties

District 29 | Harris County

District 10 Austin, Harris and Waller Counties

District 36 Chambers, Harris and Liberty Counties

District 14 | Brazoria and Galveston Counties

Taxation

The sales and use tax in the State of Texas is 6.25 percent. The City of Houston levies an additional 1.0 percent. The Harris County Metropolitan Transit Authority levies an additional 1.0 percent in areas it serves, which includes the entire

City of Houston and many of the unincorporated parts of Harris County.

The table below shows typical tax rates for property located within Houston city limits. The tax rates are expressed as dollars per \$100 taxable value.

Ad valorem property tax is the primary source of local government revenue in the Houston region.

FULL MARKET VALUE OF TAX ROLL 2021

Houston ISD

\$293.5 Billion

City of Houston

\$392.5 Billion

Harris County

\$293.5 Billion

Source: Harris County Appraisal District

TYPICAL PROPERTY TAXES Tax Rate per \$100 Taxable Value | 2021

City of Houston **\$0.55083**

Harris County + Related Entities

\$0.58364

Houston Independent School District \$1.0944

\$0.099092

Community College

Total Property Tax Rate

2.186363

Public Safety

HOUSTON POLICE DEPARTMENT (HPD)

HPD's budget for FY '22 is \$988.8 million.

The HPD budget calls for a total of 6,288 full-time-equivalent (FTE) police personnel, of which 5,171 are classified, 939 civilian and 178 police cadets in training.

HPD's estimated average response time in '21 was 5.9 minutes for priority one calls and 11.2 minutes for priority two calls.

HPD responded to 1,096,636 calls for service in '21.

HARRIS COUNTY SHERIFF'S OFFICE (HCSO)

Founded in 1837, HCSO is the largest sheriff's office in Texas and the third largest in the United States.

HCSO's FY '22 operating budget is \$616.2 million.

The Harris County Sheriff's Office provides law enforcement protection to the 4.7 million residents in Harris County.

HCSO employs over 5,000 plus an additional 200 volunteer reserve deputies.

HOUSTON FIRE DEPARTMENT (HFD)

HFD is the largest fire department in the U.S. to possess a class 1 rating from the Insurance Service Organization and is the world's largest fire department to receive accreditation from the Commission on Fire Service International. The

City of Houston has 105 fire stations equipped with 87 engine companies, 92 ambulances (36 with advanced life support), 2 hazmat response units, 11 booster trucks, 4 cascade units, 32 ladder trucks, 13 evacuation and rescue boats and 4 fast water rescue craft.

In '21, HFD responded to 363,767 incidents. Of these incidents, there were 47,708 fire-related with a first unit response median time of 8 minutes and 49 seconds and 316,059 EMS-related with a first unit response median time of 8 minutes and 55 seconds.

HFD's FY '22 budget is \$538.7 million and calls for 4,436 FTE employees, which includes 487 overtime FTEs and 95 civilian employees.

Libraries

The Houston Public Library (HPL) is comprised of 44 public service units including 31 neighborhood libraries, four regional libraries, three special collection libraries and four express libraries, the HPL Mobile Express and a satellite library

located at the Children's Museum of Houston. The system has a collection of 2.9 million items and 1.6 million registered borrowers. In fiscal year 2022, the library hopes to host 1.5 million in-house visits and 2.0 million virtual visits. The Harris County Public Library (HCPL) system is a network of 26 branches with 1.9 million items in its collection. In '21, 2.2 million physical items and 1.8 million digital items were borrowed by 2.0 million library card holders.



SELECTED HOUSTON-AREA INDEPENDENT SCHOOL DISTRICTS (ISDS) AND CHARTER MANAGEMENT ORGANIZATIONS (CMOS)

2020-2021

ISD OR CMO	CAMPUSES	TOTAL STUDENTS FALL '20	STUDENT-TEACHER RATIO	COUNTY
HOUSTON ISD	274	196,550	17.5	Harris
CYPRESS-FAIRBANKS ISD	88	114,060	15.0	Harris
KATYISD	70	84,176	14.3	Harris
FORT BEND ISD	80	76,735	15.2	Fort Bend
CONROE ISD	60	64,563	15.6	Montgomery
ALDINE ISD	77	63,302	15.1	Harris
KLEIN ISD	50	52,733	14.6	Harris
PASADENA ISD	67	50,547	13.5	Harris
HUMBLE ISD	47	45,436	14.5	Harris
ALIEF ISD	47	41,724	12.7	Harris
CLEAR CREEK ISD	46	40,737	15.9	Galveston
LAMAR CISD	41	35,042	16.4	Fort Bend
SPRING ISD	41	33,537	14.9	Harris
SPRING BRANCH ISD	45	33,323	16.0	Harris
ALVIN ISD	31	27,006	14.7	Brazoria
GOOSE CREEK CISD	29	23,257	14.5	Harris
GALENA PARK ISD	24	21,896	15.6	Harris
PEARLAND ISD	23	20,988	15.9	Brazoria
TOMBALL ISD	20	18,606	15.9	Harris
NEW CANEY ISD	19	16,254	15.5	Montgomery
YES PREP PUBLIC SCHOOLS	17	13,455	16.8	Harris
MAGNOLIA ISD	17	13,054	15.0	Montgomery
DEER PARK ISD	14	12,370	15.1	Harris
DICKINSON ISD	17	11,631	13.9	Galveston
BRAZOSPORT ISD	22	11,396	13.0	Brazoria
SHELDON ISD	13	10,199	16.0	Harris
CHANNELVIEW ISD	12	9,572	16.7	Harris
MONTGOMERY ISD	10	8,904	15.1	Montgomery
TEXAS CITY ISD	15	7,993	14.0	Galveston
WILLIS ISD	10	7,844	17.7	Montgomery

Source: Texas Education Agency, 2021 Texas Academic Performance Reports



Elementary and Secondary Education

The Houston MSA contains 61 independent school districts (ISDs) and 39 state-approved charter management organizations (CMOs). In fall '21, public schools in the Houston metro area enrolled more than 1.3 million students, approximately one in four school children in Texas,

The Houston Independent School District (HISD) is the seventh largest public school system in the nation and the largest in Texas. In the '21 - '22 school year, HISD operated 274 campuses and enrolled more than 194.000 students.

Higher Education

Colleges and universities in the Houston area enrolled nearly 425,000 students across 31 academic institutions in the fall of '21, according to the Texas Higher Education Coordinating Board. Community college students accounted for 45.3 percent and four-year, professional and medical students for 54.7 percent of enrollment in '21.

Houston benefits from three Tier I research universities: Rice University, the University of Houston, and Texas A&M University. These institutions have the highest ranking under the Carnegie classification system for research activity.

INSTITUTIONS OF HIGHER EDUCATION

Greater Houston Area, Fall 2021

TWO-YEAR COMMUNITY COLLEGES	FALL 2021 ENROLLMENT
Lone Star College System	72,036
Houston Community College	38,861
San Jacinto Community College District	31,577
Blinn College District	17,077
Lee College	7,159
Wharton County Junior College*	5,479
Alvin Community College	4,970
Lamar Institute of Technology*	4,470
College of the Mainland Community College District	4,133
Brazosport College	3,914
Galveston College	1,870
Texas State Technical College-Fort Bend	966
	192,512 STUDENTS
FOUR-YEAR OR ABOVE	FALL 2021
TOOK TEAK OK ABOVE	ENROLLMENT
Texas A&M University-College Station*	66,507
University of Houston	46,971
Sam Houston State University*	21,219
Lamar University*	15,687
University of Houston-Downtown	15,077
Prairie View A&M University	9,353
University of Houston-Clear Lake	9,279
Rice University	8,170
Texas Southern University	7,524
UT Health Science Center-Houston	5,758
University of Houston-Victoria*	4,198
Houston Baptist University	4,120
University of St. Thomas	3,848
UT Medical Branch-Galveston	3,377
Texas A&M Health Science Center	3,304
Texas A&M University at Galveston	2,168
Baylor College of Medicine	1,586
Texas Woman's University-Houston	1,300
South Texas College of Law Houston	975
UT M.D. Anderson Cancer Center	358
Texas Chiropractic College	258
University of Houston Medical School	60
	232,017 STUDENTS
TOTAL	424,529 STUDENTS

Source: Texas Higher Education Coordinating Board

*located outside Houston MSA but within 100-mile radius.



Utilities

ELECTRICITY AND NATURAL GAS

Headquartered in Houston, CenterPoint Energy (CNP) is a domestic energy delivery company that includes electric transmission and distribution, natural gas distribution, competitive natural gas sales and services, interstate pipelines, and field services operations. According to CNP's '21 Annual Report:

- CNP's assets total nearly \$37.7 billion.
- The company employs 9,418; over 5,000 work in Houston.
- CNP, via its subsidiary Houston Electric, serves 2,660,938 Texas Gulf customers (2,359,168 residential and 301,770 commercial/industrial).
- CNP'S electric utility business serves more than 2.5 million metered customers in the Houston region. Houston Electric has a Smart Grid, a private telecommunications network and a wireless radio frequency mesh telecommunications network.
- CNP's Houston Electric owns and operates 3,805 circuit miles of overhead and 26 miles of

underground electric transmission lines, 29,525 circuit miles of overhead and 26,520 miles of underground distribution lines, 239 major substation sites with a capacity of 69,915 megavolt amperes and 13 regional service centers.

In '21, CenterPoint Energy Resources Corporation (CERC) owned and operated an underground natural gas storage facility with a combined capacity of 7.0 bcf, 10 propane-air plants with a production rate of 198,000 dekatherms (dth) per day, and a liquefied natural gas (LNG) plant facility with a 12 million-gallon LNG storage tank and production rate of 72,000 Dth per day.

TELECOMMUNICATIONS

Houston is served by seven area codes: 281, 346, 409, 713, 832, 936 and 979, four of which overlap.

 The Public Utilities Commission of Texas (PUC) has certified 286 carriers to provide local phone service in the state.

- The Texas PUC has registered 207 active long-distance Interexchange Carriers.
- Numerous cellular service providers offer mobile voice and data communications in the Houston MSA, and Houston was first U.S. metro to install Verizon 5G broadband in October '18.

FIBER

The Houston metro area has over 11,200 installed fiber carrier miles. A fiber conduit can have 12 to 1,024 fiber strands inside it, and carriers can own multiple strands within each conduit. Fiber carrier miles are measured by strand length in each conduit, but only one strand per carrier is counted regardless of the number of strands owned within the conduit. However, fiber conduit route miles are measured by conduit length.

Twenty-four carriers operate or provide fiber service in Houston including, but not limited to, AT&T, Crown Castle, Consolidated Communications, Entouch, Fiberlight, ICTX, Lumen, Lightwave, Phonoscope, Verizon, Windstream and Zayo.

Fifty-five companies operate 42 fiber-lit data centers, colocation, or carrier hotel facilities in Houston including, but not limited to, Alpheus, CentruryLink, CyrusOne, Data Foundry, Digital Reality, Fiberlite, Internap, Softlayer Technologies, Stratitsphere, Sungard Availability and The Planet.

WATER

The City of Houston is the regional water provider for Harris County and portions of three surrounding counties. At projected usage rates, the City has sufficient water supplies for its wholesale and retail customers through the year 2050.

The City owns water rights to over 1.2 billion gallons per day of reliable surface water and over 200

million gallons per day of available groundwater supplies.

The City of Houston owns a 70 percent share of Lake Livingston, 70 percent of Lake Conroe and 100 percent of Lake Houston.

Houston's Drinking Water Operations produced and distributed more than 168 billion gallons of water in '21 through a 7,000-mile pipeline distribution system. The City of Houston treated 94.5 billion gallons of water in '21. Most of this water is used for industrial and manufacturing purposes.

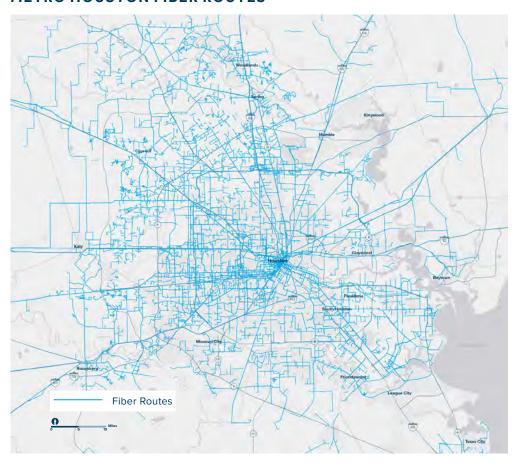
The City has three purification plants: the Northeast Water Plant, the East Water Plant and the Southeast Water Plant. The Northeast Water Plant is currently undergoing an expansion that will increase the plant's capacity from 80 mgd to 400 mgd by '24.

The City of Houston's drinking water system maintains a "Superior" rating, the highest rating for water quality issued by the Texas Commission on Environmental Quality (TCEQ).

WASTEWATER

The City of Houston operates 39 wastewater treatment plants, three wet weather facilities, 18 storm water underpass pump stations and over 383 lift stations. The City treats an average of 250 mgd of wastewater with an overall permitted capacity of 564 mgd. It maintains 6,200 miles of sewer pipelines with over 129,600 manholes.

METRO HOUSTON FIBER ROUTES



Land Transportation

MOTOR FREIGHT LINES

1,337 long-distance trucking establishments operate in the Houston MSA.

RAILROADS

The Houston area is served by BNSF Railway Company, Kansas City Southern Railway Company and Union Pacific Railroad Company. Businesses along the Houston Ship Channel are served by the Galveston Railroad, Port Terminal Railroad Association and Texas City Terminal Railway Company. Eight mainline tracks and five branch line tracks radiate from Houston.

Amtrak provides passenger service three times per week in Houston via the Sunset Limited route that travels from New Orleans to San Antonio and Los Angeles.

INTRACOASTAL WATERWAY

The Texas portion of the Gulf Intracoastal Waterway stretches 423 miles. The main channel is 12 feet deep and 125 feet wide. The entire Gulf Intracoastal Waterway spans approximately 1,300 miles from Brownsville, Texas to St. Mark's, Florida. Texas' portion of the Gulf Coast Intracoastal Waterway facilitates the transportation of up to 90 million tons of freight annually.

FREEWAYS, HIGHWAYS AND TOLL ROADS

There are 3,392 centerline miles and 11,268 lane miles of freeways and expressways in operation, according to the Texas Department of Transportation (TxDOT) Houston District. The Houston District includes Brazoria, Fort Bend, Galveston, Harris, Montgomery, and Waller Counties.

Corridors: Houston's major thoroughfares include Beltway 8, Fort Bend Tollway, Grand Parkway 99, Hardy Tollway, I-10, I-45, I-610, SH 6, SH 146, SH 225, SH 288, US 59/I-69, US 90, US 290 and the Westpark Tollway. **Highway Spending:** In FY '21, TxDOT spent \$1.5 billion on construction and maintenance projects in the Houston District.

Vehicle Miles Traveled (VMT):

Motorists traveled a total of 86,934,955 vehicle miles per day in the Houston district in '21. The average daily VMT per vehicle was 16.2 miles based on the 5,356,303 vehicles registered in the region.

METROPOLITAN TRANSIT AUTHORITY (METRO)

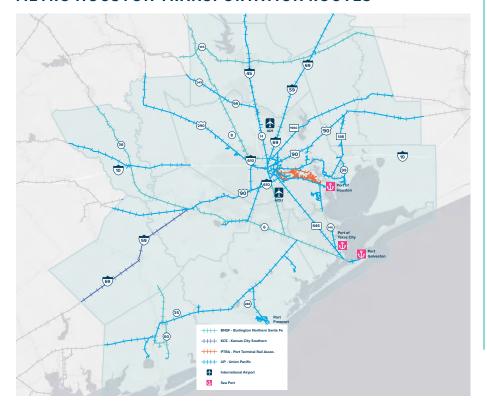
Created and funded with a one-cent sales tax in a 1978 voter referendum, the Metropolitan Transit Authority of Harris County began operations in January 1979.

METRO serves an area of 1,303 square miles with 21 transit centers, 8,964 bus stops and 27 Park & Ride lots, according to the most recent edition of METRO Highlights.

METRO's fleet included 1,545 active buses and transit vans, and 76 light-rail train cars. METRO operates 87 bus routes, one Bus Rapid Transit (BRT) route, and 16 Park & Ride routes and three light-rail lines that travel on 22.7 miles of track.

Houston Metro secured \$21.6 million from the Federal Transit Administration to buy electric buses and charging infrastructure. This follows the adoption of METRO's Climate Action Plan in early '22. METRO detailed their plans for a noemission fleet, with a goal of shifting purchasing to only zero-emission buses by '30. The city of Houston has their own Climate Plan, which aims to shift non-emergency, light duty vehicles to electric by '30. These two plans carry considerable costs, but the funds from the FTA allow Metro to double their previous purchase of 20 buses to build a fleet of 40 electric buses.

METRO HOUSTON TRANSPORTATION ROUTES



The COVID-19 pandemic reduced METRO ridership significantly in '20 and early '21, as commuters worked from home or avoided mass transit. METRO expects boardings to increase significantly in fiscal '22 due to vaccinations, in-person schooling, employees returning to

work and increases in attendance at special events. Boardings for local bus service, BRT, and Park & Ride routes are expected to top 48.4 million, up 35.4 percent from 35.7 million in '21. Boardings for METRORail service are forecast to exceed 14.3 million, up 58.5 percent from 9.1 million in '21.

All buses on METRO's bus routes and all METRORail vehicles are fully accessible to disabled patrons. METROLift offers prescheduled curb-to-curb service for disabled patrons who cannot use METRO's fixed-route service.

Sea Ports

The Houston region has four seaports which handled 227.1 million metric tons of foreign trade in '21. Of these four ports, the Port of Houston is the largest and ranks first in foreign trade tonnage among all U.S. seaports. Port Freeport ranks 13th in the U.S., Port of Texas City ranks 26th and Port of Galveston ranks 46th.

PORT HOUSTON

In '20, the Port of Houston ranked first in total tonnage (domestic and foreign)— and first in foreign tonnage (exports and imports). Houston has ranked first in foreign tonnage for 25 consecutive years, according to the most recent data available from the U.S. Army Corps of Engineers.

Container service was initiated in Houston in 1956. Today, the Port of Houston is the largest Gulf Coast container port, handling 70 percent of U.S. Gulf Coast container traffic and 97 percent of Texas container traffic.

The Port of Houston handled 27.3 million metric tons of containerized cargo and hauled in 3.4 million TEUs (twenty-foot equivalent units) in '21, setting new port records for containers handled in a year. The Port ranked as the seventh busiest U.S. container port in '21, based on total TEUs.

Foreign trade in '21 totaled 172.6 million metric tons and was valued at \$170.9 billion. Imports totaled 51.9 million metric tons, valued at \$74.8 billion. Exports totaled 120.6 million metric tons, valued at \$96.1 billion.

The Port of Houston traded with 214 countries in '21. Of those, trade with 36 countries exceeded one billion dollars each while trade with 53 additional countries exceeded \$100 million. The Port's top trading partner by value is China and by weight is Mexico.

TOP 5 TRADING PARTNERS *Port of Houston, 2021

RANK	TOP FIVE BY VALUE	VALUE IN MILLIONS
1	China	18,508.8
2	Mexico	12,846.9
3	Brazil	11,457.4
4	South Korea	8,243.7
5	Japan	7,873.4
	TOTAL TOP 5 TRADING PARTNERS	\$58,922.3 M
	ALL OTHER TRADING PARTNERS	\$100,966.4 M
	TOTAL ALL TRADING PARTNERS	\$169,888.7 M

RANK	TRADING PARTNERS	WEIGHT IN METRIC TONS
1	Mexico	22.4
2	Brazil	12.6
3	China	11.9
4	Japan	11.2
5	South Korea	8.1
	TOTAL TOP 5 TRADING PARTNERS	66.3 M
	ALL OTHER TRADING PARTNERS	106.3 M
	TOTAL ALL TRADING PARTNERS	172.6 M

Source: WISERTrade

HOUSTON SHIP CHANNEL

The Houston Ship Channel, a 52-mile inland waterway, connects Houston with the sea lanes of the world. Its turning basin is eight miles east of Houston's central business district.

Most of the channel has a minimum width of 530 feet and a depth of 45 feet at mean low tide.

More than 330 public and private terminals, owned by more than 150 companies, line both sides of the channel and serve one of the world's largest petrochemical industrial complexes.

^{*}By combined imports and exports

PORT OF HOUSTON TOTAL TRADE VALUE AND WEIGHT BY COMMODITY 2021

RANK	COMMODITY	VALUE IN MILLIONS
1	Mineral fuels, oil, refined products	58,830.3
2	Organic chemicals	17,279.9
3	Industrial equipment and computers	14,427.0
4	Plastics and plastic products	11,868.2
5	Electrical machinery	6,920.3
	TOTAL TOP 5 COMMODITIES	\$109,145.7 M
	ALL OTHER COMMODITIES	\$60,742.9 M
	TOTAL ALL COMMODITIES	\$169,888.7 M

RANK	COMMODITY	WEIGHT IN METRIC TONS
1	Mineral fuels, oil, refined products	110.9
2	Organic chemicals	16.8
3	Plastics and plastic products	7.2
4	Cereal grains	6.5
5	Salt, sulfur, stone, lime, and cement plaster	5.3
	TOTAL TOP 5 COMMODITIES	146.7 M WEIGHT IN METRIC TONS
	ALL OTHER COMMODITIES	25.9 M
	TOTAL ALL COMMODITIES	172.6 M

Source: WISERTrade from U.S. Census Bureau Foreign Trade Division data

Air Transportation

Houston is the international air gateway to the southern United States and Latin America. In '15, Hobby Airport added direct flights to Mexico, making Houston the only city in Texas with two international airports - one of only eight such cities nationwide. The Houston Airport System (HAS) HAS received high honors at the Skytrax 2022 World Airport Awards ceremony. Both William P. Hobby and Bush Intercontinental ranked among the World's Top 100 airports, claiming #33 and #36 respectively. They were the second- and third-highest ranking U.S. airports in that category.

Work is currently underway on \$1.2 billion in renovations to George Bush Intercontinental Airport. The project includes the reconstruction of the Mickey Leland International Terminal (MLIT), which consolidates the existing D and E terminals into a centralized ticketing, departures and arrivals hall for international flights. The MLIT is slated to open in '24. The project also includes demolishing the existing Terminal D/E parking garage.

SEAPORTS RANKED BY FOREIGN TRADE 2021 Port of Houston 172,597,511 metric tons U.S. Rank | 1 Port Freeport 34,478,421 metric tons

Port of Texas City

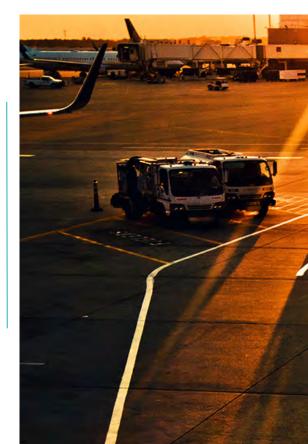
U.S. Rank | 13

 $14,904,316 \;\; \text{metric tons} \\ \text{U.S. Rank} \; | \; \textbf{26} \;$

Port of Galveston

5,072,482 metric tons U.S. Rank | **46**

Source: WISERTrade



AIR CARRIERS SERVING THE HOUSTON AIRPORT SYSTEM

GEORGE BUSH INTERCONTINENTAL (IAH)

Airlines Offering Direct Domestic Flights

Alaska Airlines Frontier Airlines
American Airlines JetBlue Airways

Delta Airlines Spirit Airlines

Airlines Offering Direct International Flights

Aeromexico **Emirates** Spirit Airlines Air Canada **EVA** Air Turkish Airlines Air China **United Airlines** InterJet Air France KLM Royal VivaAerobus **Dutch Airlines** Air New Zealand Volaris Lufthansa All Nippon Airways Westjet

Qatar Airways

Singapore Airlines

WILLIAM P. HOBBY AIRPORT (HOU)

Airlines Offering Direct Domestic Flights

Allegiant Air Frontier Airlines

American Airlines Southwest Airlines

Delta Airlines

AVIANCA

British Airways

Airlines Offering Direct International Flights

United Airlines

Delta Airlines
Frontier Airlines
Southwest Airlines

INTERNATIONAL CITIES SERVED

Acapulco Monterrey Aquascalientes Montreal Amsterdam Morelia Aruba Munich Auckland Nassau Belize City Oaxaca Bogota Panama City Bonaire Paris **Buenos Aires** Port of Spain Calgary Providenciales

Cancun Puebla
Comayagua Puerto Vallarta
Cozumel Punta Cana
Doha Queretaro
Dubai Quito
Frankfurt Rio De Janeiro

Grand Cayman Roatan Guadalajara San Jose

Guanacaste San Jose del Cabo
Guatemala City San Luis Potosi
Havana San Pedro Sula
Istanbul San Salvador
Ixtapa Santiago

Leon Sao Paulo-Guarulhos

Lima Sydney
London Taipei
Manchester Tampico
Manzanillo Tokyo
Merida Toronto
Mexico City Vancouver

Montego Bay

Houston Aviation Statistics:

HAS served 45,016,241 passengers in '21, up 82.4 percent from '20.

International traffic rose 85.2 percent to 7,304,189 passengers in '21.

Domestic passenger totals jumped 81.9 percent to 38,814,886 in '21.

At George Bush International (IAH), domestic passengers totaled 27,065,042 in '21, up 85.4 percent from '20.

At William P. Hobby Airport (HOU), domestic passengers totaled 10,639,697 in '21, up 73.0 percent from '20.

The Houston Airport System handled a total of 537,308 metric tons of air freight in '21, up 16.0 percent from '20.

Domestic cargo accounted for 67.5 percent of total air freight while international cargo accounted for 32.5 percent.

In addition to IAH, HOU and Ellington Airport (EFD), the FAA lists 28 publicuse airports and heliports located in the Houston MSA:

Austin County 1 | Brazoria 6 | Chambers 1 Fort Bend 5 | Galveston 3 | Harris 10 Liberty 1 | Montgomery 1



AND MEDIA

Houston has 250 professional media outlets, including 170 newspaper, periodical and book publishers, 58 radio and television networks, and 22 news syndicates. The Houston Chronicle, with over 1,000 employees, is the region's largest media employer. The University of Houston's KUHT, which aired its first broadcast May 25, 1953, is the oldest public television station in the U.S.

Broadcast

According to Nielsen, the Houston television market was the eighth largest in the nation in '21, making up 2.2 percent of all TV households in the U.S. Top local TV news stations include the NBC-affiliate KPRC (Channel 2), CBS-affiliate KHOU (Channel 11), ABC-affiliate KTRK (Channel 13), Fox-affiliate KRIV (Channel 26), CW-affiliate KIAH (Channel 39), Univision-affiliate KXLN (Channel 45) and Telemundo-affiliate KTMD (Channel 47).

The most popular local radio stations, by share of listenership, include KODA-FM (Sunny 99.1), KTBZ-FM (The Buzz 94.5), KLTN-FM (Que Buena 102.9), KMJQ-FM (Magic 102.1), KGLK-FM (The Eagle 107.5), KSBJ-FM (God Listens, 89.3), KKHH-FM (Hot 95.7), KTRH-AM (News Radio 740), KOVE-FM (Somos Amore 106.5), KKBQ-FM (The New 92.9), according to ratings from Nielsen.

COMMUNICATIONS MEDIA BY TYPE Houston MSA, 2021*

TV

31 establishments

1,548 jobs

\$106,340 average annual wage

Radio

27 establishments

614 jobs

\$106,340 average annual wage

Print

170 establishments

2,702 jobs

\$87,568 average annual wage

Source: Texas Labor Market Information, Quarterly Census of Employment and Wages



Digital and Print

Houston's major daily newspaper is the Houston Chronicle, which was founded in 1901. The paper has the second highest circulation in Texas and consistently ranks among the 15 most widely read newspapers in the country. In addition to the Houston Chronicle's 825,000 daily readers and 1.4 million readers on Sunday, Chron.com is widely regarded as one of the top newspaper websites and averages nearly 95 million page views and 15 million unique visitors each month. Print and digital outlets in Houston include: Bisnow, Community Impact, Culture Map Houston, Houston Business Journal, Houston Press, Houston Public Media, Houstonia Magazine, Houston CityBook, Intown Magazine, PaperCity and Realty News Report.



Cost of Living

Houston's living costs are 5.9 percent below the U.S. average and 27.5 percent below the average of the nation's 20 most populous metropolitan areas. Houston ranks as the second most affordable metro, according to the Cost of Living Index from the Council for Community and Economic Research (C2ER). Houston's overall living costs are 5.9 percent below the average for all U.S. metros.

Housing costs in Houston are 18.6 percent below the U.S. average and 53.7 percent below the average for

the nation's 20 most populous metro areas. Excluding the two most expensive housing markets, New York and San Francisco, which tend to skew the average, Houston's housing costs are 43.8 percent below the major metro average.

COST OF LIVING COMPARISONS 2021 Annual Average 20 Most Populous U.S. Metros* | (Average for 267 Urban Areas = 100)

URBAN AREA	COMPOSITE	GROCERIES	HOUSING	UTILITIES	TRANSPOR- TATION	HEALTH CARE	MISC. GOODS & SERVICES
New York (Manhattan), NY	255.0	144.9	536.1	102.4	128.1	108.8	132.8
San Francisco, CA	194.1	130.4	341.0	133.6	143.1	123.1	122.5
Washington, DC	158.1	110.7	256.9	109.6	103.8	90.8	123.3
Boston, MA	153.2	117.7	224.5	126.0	109.5	116.9	125.6
Seattle, WA	152.7	129.7	209.2	108.0	135.0	122.2	131.5
Los Angeles, CA	149.3	112.6	228.3	106.8	127.6	110.8	114.4
San Diego, CA	147.2	112.4	220.2	120.7	131.9	108.6	110.3
Chicago, IL	123.3	104.2	159.0	90.7	119.7	98.0	113.1
Miami, FL	117.1	120.7	139.4	101.4	102.1	104.1	102.8
Denver, CO	113.5	94.9	138.2	82.2	111.7	102.6	111.3
Philadelphia, PA	109.8	117.2	110.6	110.2	113.3	99.2	105.2
Atlanta, GA	105.0	98.4	111.3	84.2	100.2	106.3	110.3
Phoenix, AZ	103.9	99.2	116.9	105.8	103.1	93.0	94.2
Dallas, TX	103.5	98.4	102.7	109.9	89.7	111.9	107.4
Detroit, MI	103.0	101.7	102.8	98.3	106.5	96.5	105.7
Minneapolis, MN	102.9	102.0	98.5	96.5	106.2	98.5	110.1
Tampa, FL	94.6	103.2	88.5	97.6	97.7	96.1	94.0
Houston, TX	94.1	96.1	81.4	107.4	96.1	96.4	100.8
St. Louis, MO	87.1	99.5	74.6	94.2	86.3	89.2	90.3

^{*}Metro areas represented by most dominant urban area. Riverside, California, is among the 20 most populous metros, but did not submit COLI data. Source: Council for Community and Economic Research (C2ER), Cost of Living Index, 2021 Annual Average (Data based on a survey of 267 urban areas, published February 2022)

Weather

TEMPERATURE AND HUMIDITY

Normal (30-year average) daily maximum temperatures: January 63.8° F; April 80.1° F; July 94.5° F; October 82.8° F.

Normal (30-year average) daily minimum temperatures: January 43.7° F; April 59.8° F; July 75.7° F; October 60.9° F.

Record extremes: 109°F on August 27, 2011 and September 4, 2000; 5°F on January 18, 1930.

Humidity averages 86 percent at midnight; 90 percent at 6:00 a.m.; 60 percent at noon; 65 percent at 6:00 p.m.

The Houston MSA lies in a zone with 260-275 frost-free days per year.

PRECIPITATION

Houston averages 49.8 inches of rain per year.

Thunderstorms occurred on average 63 days per year.

Record monthly rainfall: 39.1 inches in August '17, breaking the previous record of 19.2 inches in June '01.

Highest rainfall in a 24-hour period: 18.1 inches fell on August 26-27, 2017 during Hurricane Harvey, breaking the previous record of 11.0 inches on June 8-9, 2001 during Tropical Storm Allison.

Houston has had 17 measurable snowfalls since 1939.

Record monthly snowfall: 2.8 inches in February 1973.

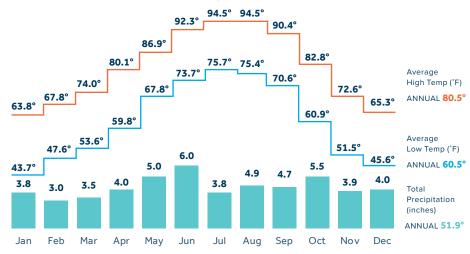
Record daily snowfall: 2.0 inches in January 1973.

SUNSHINE

 Houston averages 59 percent of possible sunshine annually, ranging from 45 percent in January to 70 percent in July.



HOUSTON WEATHER Average, 1991-2020



Note: Recorded at George Bush Intercontinental Airport's weather station. Source: National Oceanic and Atmospheric Administration

- Related Normal (30-year) averages:
- "Clear" on 90.3 days, concentrated in September, October and November.
- "Partly cloudy" on 114.5 days, typical of June through August.
- "Cloudy" on 160.3 days, common in December through February.

 Fog limiting visibility to a quarter of a mile or less occurs on average 24.2 days per year.

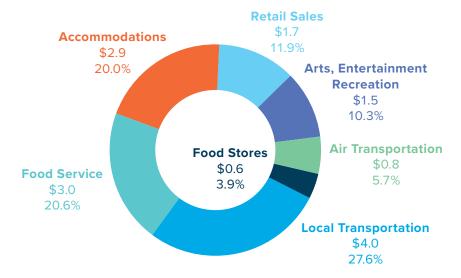
WIND

Prevailing wind is south-southeasterly at an average speed of 7.5 miles per hour.

Travel and Tourism

Travelers spent \$16.5 billion in metro Houston in '21, according to Dean Runyan Associates, which gathered the data on behalf of the Office of the Texas Governor. Their spending supported over 120,600 jobs in the region, paid over \$6.0 billion in salaries and wages, and generated \$1.7 billion in tax revenue. Metro Houston had 1,359 hotels and motels and 101 campgrounds and RV parks at the end of '21.

TRAVELER SPENDING IN METRO HOUSTON 2021



Dining

Houston restaurants feature outstanding regional dishes as well as diverse international cuisine. At the end of '21, the Houston MSA was home to 11,936 food service and drinking establishments that employed more than 264,350. These establishments included: 4,833 full-service restaurants, 4,741 limited-service eating places,

671 drinking establishments, 1,563 snack bars, and 788 other food service establishments.

According to Yelp.com, Houston has over 80 categories of cuisine, including Cajun, Latin American, Ramen, Polish and Vegan restaurants. Houston is also home to nearly 1,000 food trucks and stands and about 100 wine bars. Houston's reputation of being a culinary hotspot is recognized by the James Beard Foundation, the organization that bestows the James Beard Awards, commonly known as the "Oscars of the food world." The greater Houston area received 10 semifinalist nominations for the '22 awards.



SELECTED CATEGORIES OF CUISINE

Afghani	Hawaiian	Portuguese
Argentinian	Honduran	Salvadorian
Asian Fusion	Indian	Seafood
Barbeque	Italian	Soul Food
Cajun/Creole	Jamaican	Southern
Caribbean	Japanese	Sri Lankan
Chinese	Korean	Sushi
Cuban	Laotian	Szechuan
East African	Lebanese	Tex-Mex
Egyptian	Malaysian	Thai
European	Mediterranean	Turkish
(Modern)	Mexican	Vegan
Filipino	Nepalese	Venezuelan
French	Pakistani	Vietnamese
German	Persian	West African
Greek	Peruvian	Yemenite
Halal		

Arts and Culture

PERFORMANCE ARTS

Resident companies in drama, ballet, opera and orchestra perform year-round in Houston. More than 550 institutions are devoted to the performing and visual arts, science and history in the Houston area. In 2017, the latest data available. Houston's nonprofit arts and culture industry generated over \$1.1 billion in total economic activity, according to the Arts & Economic Prosperity report by Americans for the Arts. This spending – \$579.4 million by nonprofit arts and culture organizations and an additional \$538.0 million in event-related spending by their audiences - supports 25,817 fulltime equivalent jobs, generates \$801.6 million in household income to local residents and delivers \$119.3 million in local and state government revenue.

THEATER DISTRICT VENUES

Houston's Theater District, located in downtown Houston, spans 17 blocks, and its five flagship theaters house 13,000 seats. The Alley Theatre, Hobby Center for the Performing Arts, Jones Hall, Revention Music Center and Wortham Theater Center host seven renowned performing arts organizations as well as many smaller programs. The Theater District also includes one venue dedicated solely to dance: Houston Ballet's Center for Dance.

ALLEY THEATRE, home to a nationally recognized performing arts company, offers two stages, the 774-seat Hubbard Stage and the 296-seat Neuhaus Stage, and nearly 500 annual performances. Founded in 1947, the theater company produces up to 16 plays annually. Through its performances and educational programs, the company reaches over 200,000 people each year.

HOBBY CENTER FOR THE

PERFORMING ARTS, opened in '02, is home to Theatre Under the Stars (TUTS), Broadway Across America, the Humphreys School of Musical Theatre and Uniquely Houston (a program that provides a home venue for Houston's smaller and mid-sized nonprofit performing arts organizations in the Theater District). Its two stages, Sarofim Hall and Zilkha Hall, has seating for 2.650 and 500.

HOUSTON BALLET'S CENTER FOR DANCE is the largest professional dance company facility of its kind in the U.S. With 115,000 square feet, the six-

U.S. With 115,000 square feet, the sixstory structure with sustainable features was constructed for \$46.6 million and opened in '11. The center features nine dance studios and a dance lab that seats 175.

JESSE H. JONES HALL FOR THE PERFORMING ARTS, opened in 1966, is home to the Houston Symphony and the Society for the Performing Arts. Spanning an entire city block, the hall



offers 250 events annually and seats 2,911. More than 400,000 visitors attend performances each year.

BAYOU MUSIC CENTER, formerly known as the Revention Music Center, seats 2,815 inside the 130,000-square-foot Bayou Place entertainment complex in downtown Houston.

wortham theater center, built entirely with private funds at the height of the 1980's oil bust on land provided by the city, opened in 1987. The theater is home to the opera and ballet companies, and its two halls, the Alice and George Brown Theater and the Lillie and Roy Cullen Theater, seat 2,405 and 1,100, respectively.

OTHER VENUES

BERRY CENTER, located in Northwest Houston, includes an 11,000-seat athletic stadium, a conference center with over 15,000 square feet of event space, an 8,312-seat arena and a 484-seat theater.

CYNTHIA WOODS MITCHELL PAVILION, located in The Woodlands, offers outdoor performance space and

accommodates 16,500. Established in 1990, it presents an eclectic range of programs featuring nationally and internationally recognized artists.

MIDTOWN ARTS & THEATER CENTER HOUSTON (MATCH), which began holding performances in '15, was formed to create a new space for Houston artists to collaborate and present their work. More than 40 arts groups provided input for the design of the venue, which consists of two buildings with four performance spaces, three rehearsal studios, a 3,000 square feet gallery space and offices for arts professionals.

MILLER OUTDOOR THEATRE

offers free outdoor performances by Houston's performing arts organizations. The city-owned theatre is located on 7.5 acres of land in Hermann Park, site of the Houston Zoo, the Garden Center and the Museum of Natural Science. Seating is provided for 1,700 patrons under the covered pavilion. A sloping lawn accommodates approximately 4,500 more on blankets or lawn chairs.

SMART FINANCIAL CENTRE, located in Sugar Land, opened in January '17 and

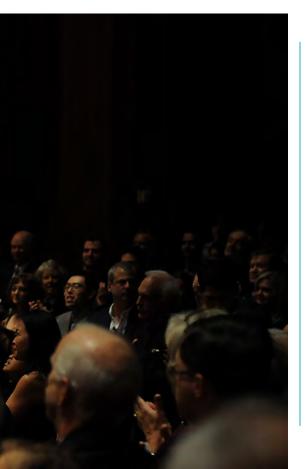
is a premier venue for a wide variety of performances and programs. This state-of-the-art indoor hall can seat up to 6,400. In '19, the Centre ranked seventh in the world in ticket sales for venues under 10,000 seats.

STAFFORD CENTRE, located in Stafford, opened in 2004 and includes a performing arts theater with seating for 1,154 and 24 acres of outdoor festival green space.

THE GRAND 1894 OPERA HOUSE in

Galveston is a Romanesque Revivalstyle theater. Listed in the National Register of Historic Places, the Opera House has seating for 1,000 and presents Broadway shows, comedians, musicians, silent films and more.

WHITE OAK MUSIC HALL, opened in '16, hosts over 400 live music events per year, from a diverse array of musical acts and genres, including rock, country, hip-hop, R&B and more. Covering over 5 acres, the venue provides two indoor performance stages, supporting 200 and 1,000 attendees, and an outdoor amphitheater that can fit over 3,000 people.



Arts Organizations

DANCE

HOUSTON BALLET, founded in 1955 and established as a professional company in 1969, is the nation's fifth largest ballet company, with annual operating expenses of \$33.2 million and 59 dancers. Houston Ballet has toured extensively, appearing in Europe, Canada, Australia and cities throughout the U.S. Through its Education and Community Engagement Program, the Houston Ballet is committed to providing high-quality, community-sponsored educational programming to the diverse populations of Houston and its surrounding areas.

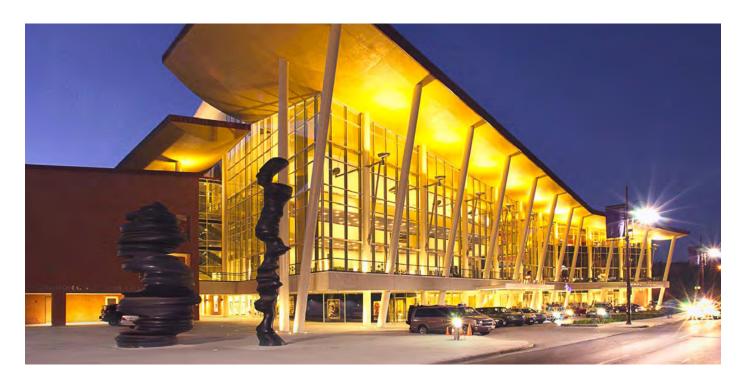
LITERATURE

INPRINT, founded in 1983, is a literary arts nonprofit organization that provides literary performances,

writing workshops and financial support for emerging writers. Inprint annually serves more than 15,000 readers and writers of fiction, poetry and creative nonfiction. Literary performance programs have featured more than 370 celebrated writers from 28 countries, including winners of nine Nobel Prizes, 15 Man Booker Prizes, 50 National Book Critics Circle Awards, 56 National Book Awards, 62 Pulitzer Prizes as well as 19 U.S. Poets Laureate.

MUSIC

DA CAMERA, founded in 1987, provides thematically programmed concerts with a broad range of repertoire and musical styles. Da Camera also founded the Young Artist Program in '09 to provide performance opportunities for emerging musicians.



HOUSTON GRAND OPERA (HGO).

founded in 1955, is known worldwide for training young artists and for commissioning and presenting new works. HGO has presented 71 world premieres through the end of 2021. With an operating budget of \$27 million, HGO presents six to eight productions per season. The opera offers diverse, innovative and wide-reaching community and education projects. HGO has won three Emmy Awards, two Grammy Awards and a Tony Award. In '19, HGO was the only American finalist for Opera Company of the Year at the International Opera Awards.

HOUSTON SYMPHONY was founded in 1913 and is one of the oldest performing arts organizations in the nation. The Grammy Award-winning symphony has a full-time ensemble of 79 professional musicians and presents nearly 170 concerts each year. In addition, the musicians offer more than 1,000 communitybased performances each year. The symphony's long tradition of touring has included Europe, Japan, and Russia. In '18, the Houston Symphony won their first ever Grammy award for Best Opera Recording of Alban Berg's Wozzeck.

PERFORMING ARTS

PERFORMING ARTS HOUSTON,

founded in 1966, is the largest nonprofit presenting organization of its kind in the Southwest. SPA presents internationally acclaimed artists from all performing artforms, including large orchestras and dance companies, and solo performers.

THEATER

A.D. PLAYERS, founded in 1967, is one of Houston's largest and oldest professional theater companies, which produces plays and programs from a Christian world-view. The A.D. Players offered five mainstage shows and two Black Box (Aspiring Artist series) theater performances for the '18–'19 season. A.D. Players perform at the Jeanette and L.M. George Theater.

ENSEMBLE THEATRE, located in Midtown and established in 1976, is one of a few professional theaters in the Southwest devoted to preserving African American artistic expression. Ensemble Theatre performances reach 65,000 people each year. The theatre offers contemporary and classical works, adult masterclasses, weekend workshops, and a Young Performers Program.

MAIN STREET THEATER (MST).

founded in 1975, produces innovative plays for adults and children at its two locations, one in Rice Village and the other at the Midtown Arts & Theater Center (MATCH). MST also offers educational and youth programs onsite and at locations throughout the Houston region.

stages theatre, founded in 1978, presents plays and musicals. Stages is Houston's sixth largest nonprofit performing arts producer, the largest outside of Houston's downtown theatre district. With an average of 12 productions per year and more than 430 performances, Stages welcomes more than 75,000 visitors each season. In '20, Stages opened its new three-theater venue called The Gordy.

THEATRE UNDER THE STARS (TUTS).

founded in 1968, offers a mix of touring musicals and self-produced shows, both new works and revivals, performed at the Hobby Center. It also operates the Humphreys School of Musical Theatre. The River Performing and Visual Arts Center merged with TUTS in '10 to provide singing, dancing and acting opportunities to children with disabilities. The theater celebrated its 50th anniversary during the '18-'19 season.

Museums

HOUSTON MUSEUM DISTRICT

The Houston Museum District is one of the country's most visited and diverse cultural centers with 19 museums. These museums provide rich experiences in art, history, culture, nature and science. The district is divided in four walkable zones, each of which includes a group of museums.

ASIA SOCIETY TEXAS CENTER,

opened in '12, houses the 273-seat Brown Foundation Performing Arts Theater, the Louisa Stude Sarofim Gallery and more. One of only 13 Asia Society locations throughout the world, the center serves as an Asia-Pacific educational and cultural institution in the region.

BUFFALO SOLDIERS NATIONAL

MUSEUM, opened in '01, is the only U.S. museum dedicated to preserving the legacy and honor of the African-American soldiers that served on behalf of the United States of America.

CHILDREN'S MUSEUM OF

HOUSTON, founded in 1981, has been ranked as the number one children's museum in the U.S. by Parents
Magazine. Families from 31 countries, all 50 states and 905 Texas cities have visited the Children's Museum of Houston. The museum has handson galleries and offers a multitude of exhibits and programs for children. In '20, the museum began offering daily virtual learning broadcasts, of which more than 6 million children and families have attended.

CONTEMPORARY ARTS MUSEUM HOUSTON, founded in 1948, is

a non-collecting museum that presents regional, national and international art of the past 40 years through exhibitions accompanied by publications and educational programming.

CZECH CENTER MUSEUM

HOUSTON, opened in 1996, is dedicated to the exploration and preservation of Czech and Slovak heritage, including art, music and dance. The center features a wide array of cultural events, film screenings, art exhibitions and lectures.

DIVERSEWORKS, founded in 1982, presents and commissions new art in all forms. DiverseWorks supports freedom of artistic expression with an artist-centered focus through a schedule of exhibitions, performances and community programs.

HOLOCAUST MUSEUM HOUSTON.

opened in 1996, is dedicated to educating people about the Holocaust, honoring the survivors' legacy and remembering the six million Jews and other innocent victims who died in concentration camps in WWII. Reopening in '19 after undergoing a \$34 million expansion, its new 57,000-square-foot facility is ranked as the fourth largest Holocaust museum in the nation.

HOUSTON CENTER FOR

contemporary craft, founded in '01, is a nonprofit arts organization dedicated to advancing education about the process, product and history of craft. The center is one of the few venues in the U.S. dedicated exclusively to craft.

HOUSTON CENTER FOR

PHOTOGRAPHY, founded in 1981, brings together a community of people interested in photography and lens-based work. The center offers a gallery and a library with over 4,000 books. In addition, the center provides more than 300 photography classes and workshops annually.

HOUSTON MUSEUM OF AFRICAN AMERICAN CULTURE (HMAAC).

opened in '12, exhibits the material and intellectual culture of Africans and African Americans in Houston, the state of Texas, the Southwest and the African Diaspora.

HOUSTON MUSEUM OF NATURAL

SCIENCE, established in 1909, houses four floors of 17 permanent exhibits, the Burke Baker Planetarium, Cockrell Butterfly Center and the Wortham Giant Screen Theatre. The museum also maintains a satellite facility in Sugar Land and the George Observatory in Fort Bend County, which houses one of the largest telescopes in the country.

HOUSTON ZOO seeks to provide a fun and inspirational experience fostering appreciation, knowledge and care for the natural world. There are over 6,000 animals attracting more than 2.4 million guests each year.

JUNG CENTER OF HOUSTON was

founded in 1958 in honor of Carl Gustav Jung, the revolutionary psychologist. The center displays new art exhibits each month and offers more than 200 classes annually. Much of the featured artwork is generated by local and regional artists.

LAWNDALE ART CENTER, founded in 1979, is one of the only institutions in Houston that is dedicated to the presentation of contemporary







art with an emphasis on work by regional artists.

MENIL COLLECTION, opened in 1987, features a highly acclaimed collection of some 19,000 works of art, including masterpieces from antiquity, the Byzantine and the tribal cultures of Oceania. The museum has one of the world's foremost collections of Surrealist holdings.

MOODY CENTER FOR THE ARTS,

located at Rice University, serves as an experimental platform for creating and presenting art works. The 50,000-square-foot facility constructed in '17 for \$30 million features a striking contemporary design with bold geometric shapes. In '17, the Moody received a Design Honor Award from the American Institute of Architects, California Council.

MUSEUM OF FINE ARTS, HOUSTON

(MFAH), opened in 1924, the museum is among the 10 largest art museums in the U.S. with nearly 70,000 works of art. The MFAH campus includes three buildings, the Glassell School of Art, a sculpture garden and more. Satellite facilities include the Bayou Bend Collection and Gardens. In November '20, the museum completed the construction of a new masterplanned campus transformation. The \$450 million expansion included a state-of-the-art conservation center, a new tunnel system connecting the buildings, and the Nancy and Rich

Kinder Building, which adds more than 100,000 square feet of exhibition space to the museum.

ROTHKO CHAPEL, founded in 1971, is a non-denominational place of meditation and reflection that welcomes over 100,000 visitors each year. The chapel contains 14 canvases by the painter Mark Rothko and is lit only by skylight. The chapel's plaza contains an obelisk in memory of Dr. Martin Luther King Jr. After closing for expansion and restorations, the chapel re-opened in Fall '20.

THE HEALTH MUSEUM, opened in 1996, is an interactive science center and a member institution of the world-renowned Texas Medical Center. With over 2.5 million visitors, the museum is the most visited health museum in the country. In '17, the museum was named a Smithsonian Affiliate.

OUTSIDE THE MUSEUM DISTRICT

1940 AIR TERMINAL MUSEUM,

founded in 1940, has a theater and several galleries of aviation memorabilia housed in Houston's original art deco air terminal. The museum also serves as a venue for planespotters to view activity at nearby Hobby Airport. The 1928 Carter Airmail Hangar onsite is also open for tours. In '20, the Museum celebrated the 80th anniversary of the opening of the Houston Municipal Airport terminal.

ART CAR MUSEUM, opened in 1998, is a private institution that exhibits contemporary art with a focus on art cars and other fine arts not typically seen in museums.

BLAFFER ART MUSEUM

established in 1973, is dedicated to furthering the understanding of contemporary art through exhibits, publications and programs.

BRYAN MUSEUM, located in the historic Galveston Orphans Home, opened in '15 and houses one of the world's largest collections of historical artifacts, documents and artwork relating to Texas and the American West. The museum also has a library and an archive.

by the Art League of Fort Bend, opened in '18. It is a multi-arts center with fine artwork by more than 30 member artists on display and for sale. With two galleries, the art center functions as a shared space for artists and art enthusiasts to create, exhibit and experience art.

GALVESTON NAVAL MUSEUM,

opened in 1971 and located in Seawolf Park, has two drydocked WWII vessels that visitors can explore: the USS Cavalla submarine, and the USS Stewart, the only Edsall-class destroyer escort preserved in the United States.

GALVESTON RAILROAD MUSEUM,

opened in 1983, is located at the site of the 1932 Santa Fe depot and railyard. The museum also served as the terminal for the Texas Limited excursion train until it ceased operations in 1996. The museum's artifacts include forty pieces of rolling stock (railcars and locomotives) and exhibits detailing rail history.

HARRIS COUNTY HERITAGE

SOCIETY operates ten historic buildings that date from 1823 to 1905, which the organization authentically restored and moved to Sam Houston Park. Together with the Museum Gallery, these buildings serve as historic reference points and exhibition spaces for more than 23,000 artifacts that document life in historic Houston.

HOUSTON BLUES MUSEUM, founded in '09, works to preserve the legacy of Houston's Blues musicians. The museum also provides educational programs for adults and children.

HOUSTON MARITIME MUSEUM.

founded in '00, has eight galleries with collections of maritime artifacts and ship models throughout history, including exhibits on the history of Buffalo Bayou and the Houston Ship Channel.

LONE STAR FLIGHT MUSEUM.

opened in 1990, is an aviation museum and STEM learning center. The museum is home to the Texas Aviation Hall of Fame as well as a collection of historic aircraft, handson exhibits and a \$1 million Aviation Learning Center. The museum opened a new \$38-million, 130,000-square-foot facility at Houston's Ellington Airport in '17.

NATIONAL UNITED STATES ARMED FORCES MUSEUM collects, restores and displays military artifacts including vehicles, aircraft and artillery field pieces. The museum also acts as a research facility with an online database and serves as a meeting space for military organizations.

NATIONAL MUSEUM OF FUNERAL HISTORY, founded in 1992, houses 17 permanent exhibits of funerary

artifacts, including a rare collection of historical hearses. The museum collaborates with the Vatican to display an exhibit on the lives and deaths of the Popes.

O'KANE GALLERY, established in 1970, annually offers about 6 exhibitions representing a diversity of artists, themes and mediums.

ORANGE SHOW CENTER FOR VISIONARY ART is a nonprofit organization founded in 1980 that preserves, promotes and documents visionary art environments. The center has been the producer of the annual Houston Art Car Parade for the past 35 years.

PEARL FINCHER MUSEUM, opened in '08, is a non-collecting fine art museum that provides a wide array of art exhibits and educational programs. Housed in a former county library, the Pearl is located in Spring.

SAN JACINTO MONUMENT AND MUSEUM OF HISTORY, located at San Jacinto Battleground State Historic Site, features artifacts and documents covering Mexican Texas, the Texas Revolution and the Republic of Texas. This 1,200-acre site is also a National Historic Landmark and consists of the San Jacinto battleground, the monument with observation floor, the museum of history and Battleship Texas. In '20, operational control of the Battleship was transferred to the Battleship Texas Foundation. The Battleship is currently undergoing renovations.

SPACE CENTER HOUSTON, the Disney-designed visitors' center for Johnson Space Center, opened in 1992 and attracts nearly 1.25 million visitors per year. It features two theaters, a starship gallery that includes the Saturn V Rocket, a tram tour of the campus, a space suit gallery, and the world's largest collection of moon rocks.

STATION MUSEUM OF CONTEMPORARY ART located in

the Third Ward, is an exhibition forum for local, national and international artists with comprehensive exhibitions from Afghanistan, Austria, Colombia, Congo, Czech Republic, India, Iraq, Mexico, Palestine, Peru, Russia, South Africa and Venezuela.

TEXAS SEAPORT MUSEUM is home to the 1877 tall ship ELISSA, a National Historic Landmark that has also been designated as an American Treasure by the National Trust for Historic Preservation. The museum displays information on seaborn commerce and immigration, including a database containing names of over 133,000 immigrants who entered the U.S. through Galveston.

THE HOUSTON FIRE MUSEUM,

established in 1982 and housed in a historic firehouse, provides exhibits, educational programs and public events that explore the history of Houston's fire service. Originally Fire Station No. 7 and the first paid fire station built by the Houston Fire Department, the two-story building opened in 1899 and had a steamer and hose wagon each pulled by horses. The museum is currently closed, but plans to reopen in 2023. Fully rennovated, the museum is listed on the National Register of Historic Places.

THE PRINTING MUSEUM, founded in 1979, has interactive tours and exhibits with over 10,000 items in its permanent collection. Founded by four printers, the museum features ancient papyrus fragments, a Johannes Gutenberg Gallery and early American and Texan printing.

THE WOODLANDS CHILDREN'S MUSEUM provides a cooperative learning environment for children, including dynamic workshops and more than 15 interactive exhibits.

UNIVERSITY MUSEUM AT TEXAS SOUTHERN UNIVERSITY (UMUSE),

opened in '00, has 11,000 square feet of exhibition space with acoustics for musical performances. The museum displays a collection of African and African American art accumulated over four decades.

Recurring Events and Festivals

JANUARY

Chevron Houston Marathon

Houston Boat Show

MLK Grande Parade

"Original" MLK, Jr. Birthday Parade

Texas Lunar New Year Houston

FEBRUARY

Mardi Gras! Galveston

World's Championship Bar-B-Que Contest

MARCH

Azalea Trail

Buffalo Bayou Regatta

Hermann Park Kite Festival

Houston Holi: Festival of Colors

Houston Livestock Show and Rodeo

APRIL

BP MS 150

Houston Art Car Parade

Houston Barbecue Festival

Houston Children's Festival

Houston Press Brewfest

Houston Turkish Festival

Japan Festival Houston

McDonald's Houston Children's Festival

Memorial Hermann IRONMAN Texas North America Championship

The Nutcracker Market Spring

San Jacinto Day Celebration and Battle Reenactment

Southwest International Boat Show

The Woodlands Waterway Arts Festival

Tour de Houston

U.S. Men's Clay Court Championship

WorldFest: Houston International Film Festival

MAY

Cinco de Mayo Parade and Celebration

Comicpalooza

Dragon Boat Festival

Houston Polish Festival

Keels & Wheels Concours d'Elegance

Pasadena Strawberry Festival

Rails & Tails Mudbug Festival

JUNE

Houston Caribbean Festival

Juneteenth Celebration

Pride Houston

Texas Outlaw Challenge

JULY

Freedom Over Texas Festival

Great Texas Mosquito Festival

Star-Spangled Salute

AUGUST

AIA Sandcastle Competition

Houston Restaurant Weeks

Houston Shakespeare Festival

Theater District Open House

White Linen Night in the Heights

SEPTEMBER

Houston International Jazz Festival

Texas Kickoff

Fiestas Patrias

Oktoberfest Houston

OCTOBER

Bayou City Art Festival Downtown

Bayou City Art Festival Memorial Park

Día de los Muertos at Sugar Land Heritage Foundation

Grito Fest

Houston Black Heritage Music & Arts Festival

Houston Italian Festival

International Quilt Festival

Original Greek Festival

Pearland Art & Crafts on the Pavilion

Texas Contemporary Art Fair

Texas Renaissance Festival

Texian Market Days

Wings Over Houston Airshow

NOVEMBER

Annual Turkish Festival

Día de los Muertos at Discovery Green

H-E-B Thanksgiving Day Parade

Houston Open

Houston Zoo Lights

Ice @ Discovery Green

Interfaith Thanksgiving Service at

Rothko Chapel

Lone Star Rally

Mayor's Holiday Celebration and Tree

Lighting

Moody Gardens Festival of Lights

Puerto Rican and Cuban Festival

Texas Championship Native American

Pow Wow

The Nutcracker Market

Veterans Day Celebration

Via Colori

DECEMBER

Christmas Boat Lane Parade

Christmas Village at Bayou Bend

Dickens on the Strand

Mercari Texas Bowl

Tamale Festival Houston

Tomball German Christmas Market & Festival



Religious and Cultural Diversity

According to the Kinder Institute for Urban Research's 39th Annual Houston Area Survey, 80.1 percent of Harris County residents report that religion is "somewhat" or "very" important to them. Among those surveyed, 40.5 percent identify as Protestant, 30.1 percent identify as Catholic, 1.3 percent identify as Jewish, and 4.4 percent of respondents are of another religion. Of the remaining respondents, 18.3 percent have no religious affiliation, and 5.3 percent did not answer. As the nation's most diverse city, Houston is home to a wide array of faith traditions. One can experience Houston's religious diversity through the numerous mosques, synagogues, Hindu temples and a Zoroastrian cultural center in the region. Representative religious congregations in Houston include:

AL-NOOR MOSQUE AI-Noor Mosque, established in 1987, boasts a large gold dome that can be seen from I-69 and the Westpark Tollway. It is located in Houston's Hillcroft region, a vibrant center of South Asian culture within the city.

ANTIOCH MISSIONARY BAPTIST CHURCH, located in the heart of downtown, is a predominantly African-American church founded by freed slaves in 1866.

BAPS SHRI SWAMINARAYAN
MANDIR, the first traditional Hindu
Mandir of its kind in the U.S., is located
in Stafford. The stones used to build
the temple were quarried in Turkey
and Italy, and then shipped to India
where traditional artisans sculpted
more than 33,000 individual pieces.

CENTRO ISLÁMICO, opened in early '16, is the nation's first Spanish-speaking mosque. Located in a former industrial building on Houston's far southwest side, the building's inside has architectural elements of Moorish Spain.

CHAPEL OF ST. BASIL, located at Houston's Catholic University of St. Thomas in the Montrose district, is a cube-shaped chapel designed by renowned architect Philip Johnson.

CHRIST CHURCH CATHEDRAL was Houston's first religious congregation when founded in 1839 and is the only one still worshiping on its original site from the days when Houston was the capital of the Republic of Texas. In 1949, Christ Church became the cathedral for the Episcopal Diocese of Texas.

CO-CATHEDRAL OF THE SACRED HEART is a Catholic place of worship

with a congregational history dating back to the 1890s. The current cathedral building opened in '08 and features a towering stainedglass display created by artisans in Florence, Italy.

CONGREGATION BETH YESHURUN,

the largest conservative synagogue in the U.S., is important not only for its 120-year history but also for its location in the Meyerland area, which is known as the center of Houston's Jewish community.

ISMAILI JAMATKHANA AND CENTER,

opened in '02, is set by a lake on an 11.5-acre site in Sugar Land. The center is a religious venue for Shi'a Ismaili Muslims in Houston, as well as a site for community events to stimulate the intellect, encourage dialogue and celebrate cultural diversity in the greater Houston area.

LAKEWOOD CHURCH, housed in a former sports arena, is one of the largest religious congregations in the U.S. It is pastored by televangelist Joel Osteen and features both English and Spanish language services.

MTO SHAHMAGHSOUDI SCHOOL OF ISLAMIC SUFISM, located along Beltway 8, is a Sufi temple that is rich in art and architecture. The energy efficient design of the building features solar panels.

OUR LADY OF GUADALUPE CHURCH, founded in 1912 in Houston's Second Ward, was the first church in Houston to offer services in Spanish. The parish hosts the oldest Catholic grade school in Houston.

SAINTS CONSTANTINE & HELEN SERBIAN ORTHODOX CHURCH, built in 1896 and originally supported by



the last czar of Imperial Russia, Czar Nicholas II, originally held services in Greek, Russian, and Serbian. Located in Galveston, the church celebrated its 125th anniversary in '21.

ST. MARTIN'S EPISCOPAL CHURCH,

founded in 1952, has grown to become the largest Episcopal Church in North America with more than 9,800 members. The funerals for former president George H. W. Bush and his wife Barbara Bush were both held at St. Martin's where they had been active members since the 1950s.

ST. PAUL'S UNITED METHODIST CHURCH, founded in 1905, is in the heart of Houston's Museum District. The church is renowned for its choir and Neo-Gothic architecture.

TEXAS GUANDI TEMPLE, founded in 1999, welcomes Taoists, Buddhists and anyone who seeks respite, meditation or counsel. The building is a focal point of Houston Old Chinatown. An architect from China designed the Texas Guandi Temple, the largest temple in the nation dedicated to Guandi. Materials for the building and for the interior also came from China.

THE ISLAMIC SOCIETY OF GREATER HOUSTON (ISGH) is the largest Islamic society in North America. Established in 1969, ISGH currently includes 21 Islamic Centers across the Houston metro.

ZARATHUSHTI HERITAGE AND CULTURAL CENTER, opened in May 1998, is built on a seven-acre site that was donated by community members. The Center is a house of worship for Irani Zarathushtis and Parsis from India, Iran and Pakistan.

Major Events and Conventions

Greater Houston has 4.4 million sq. ft. of convention space and regularly hosts worldwide events such as the International Quilt Festival at the George R. Brown Convention Center and the Offshore Technology Conference at NRG Park.

The COVID-19 pandemic caused Houston's typically busy convention schedule to grind to halt in '20. Since then, the city's tourism and convention organization Houston First Corporation has worked to rebuild the convention slate. During the first half of 2022, the city hosted 213 events with more than 300,000 attendees, up from just 38 events with more than 64,500 attendees in the first half of 2021. Houston First officials forecast that Houston will host more than 340 events during 2022.

Recent major events in Houston include the First Championship in April, the NRA Annual Meeting in May, Rotary international in June and the 2022 Copa de Lone Star at NRG in July.

Houston is slated to host the NCAA Men's Basketball Championship in '23, the College Football National Championship in '24 and is one of the host cities for the '26 FIFA World Cup.

GOLF

The Houston MSA has 143 golf courses, according to pga.com.

Houston has hosted top tier tournaments at the professional and amateur levels, including five PGA tour championships, two LPGA tour championships, one Ryder Cup, two U.S. Opens, and five U.S. amateur championships.

Most recently, Houston's Champions Golf Club hosted the U.S. Women's Open Tournament in '20. It was the first U.S. Open held in Houston since the men's tournament in 1969. The Houston Open has made the Bayou City an annual PGA tour stop since 1930. After 17 years at the Golf Club of Houston, the tournament moved to Memorial Park in '20.

The Woodlands Country Club has hosted the PGA Champions Tour's Insperity Invitational since '08. One of two Texas stops. Texas stop for the PGA's senior tour.

Bluejack National, located in Montgomery County, is ranked number 3 of Texas courses in '21 to '22 by Golf Digest.

The City of Houston Parks and Recreation Department maintains eight municipal golf parks.

RACING

Alkek Velodrome, built in 1986, is a concrete bicycle racing track located in Houston's Cullen Park. It is one of 26 velodromes in the United States, according to USA Cycling. In '19, Alkek was selected as one of four inaugural training centers for U.S. Track Cycling's Olympic Development Program.

Galveston Bay Cruising Association, founded in 1947, is an all-volunteer non-profit sailboat racing club based in Clear Lake Shores.

Houston Raceway Park is a multipurpose motorsports venue located in Baytown. The race park features a quarter-mile drag strip sanctioned by the National Hot Rod Association (NHRA).

Houston Motorsports Park is a car racing track in Northeast Houston that features a NASCAR oval track and a NHRA drag strip.

Sam Houston Race Park is a horse racing track located in Northwest Houston that hosts Thoroughbred and American Quarter horse races.

BIKING AND HIKING

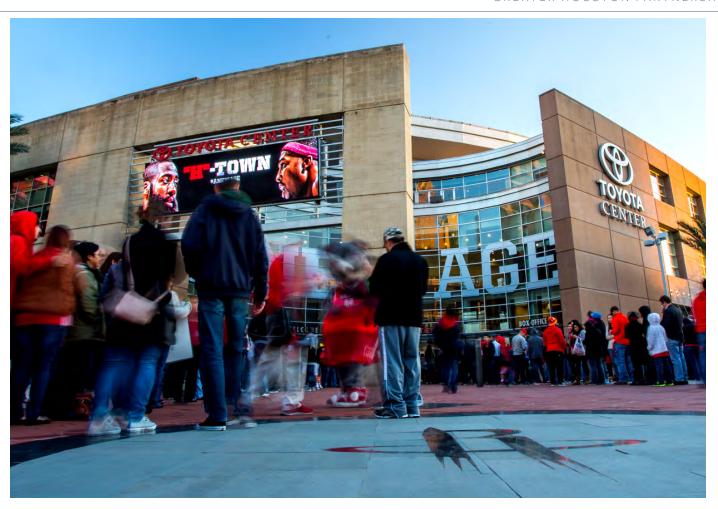
The City of Houston has a 345-mile interconnected bikeway network that includes shared-use bike lanes, dedicated on-street bike lanes, and shared sidewalk paths.

In '17, the Houston City Council adopted the Houston Bike Plan, a multi-phased project to extend the city's bikeway network to 1,800 miles of high quality biking routes and establish Houston as a national Gold-level Bicycle Friendly City by '27.

Houston B-cycle is the City of Houston's non-profit bike share program, offering rentable bicycles at 150+ bike share stations with 1100+ bikes in circulation.

The Houston Parks and Recreation Department maintains 176 surfaced running and hiking trails spanning 165.3 miles.





Convention and Sports Facilities

AVENIDA HOUSTON, Avenida Houston, which opened in '17, is the entertainment district in front of the George R. Brown (GRB) Convention Center in downtown Houston. The 97,000-square-foot outdoor plaza connects Discovery Green's 12-acre park, public art installations, as well as two convention headquarter hotels adjoined to the GRB, the 1,200-room Hilton Americas and the 1,000-room Marriott Marquis. The area around Avenida Houston offers many retail and dining options, including several restaurants within the GRB.

PNC STADIUM, the state-of-the-art, open-air stadium designed to host Dynamo and Dash soccer matches as well as additional sporting and concert events, opened in May '12. The 22,000-seat stadium is the first soccer-specific stadium in Major League Soccer located in a city's downtown district. This stadium has also been home to Texas Southern University Tigers football since 2012.

CONSTELLATION FIELD opened in '12 as home of the Sugar Land Space Cowboys of the Pacific Coast League. The stadium hosts sporting events as well as concerts. It has a capacity of 7,500 spectators for baseball games (expandable to 10,000) and 9,500 for concerts.

GEORGE R. BROWN (GRB)
CONVENTION CENTER, one of the nation's largest convention centers, opened in 1987. GRB offers nearly 2 million square feet of exhibit and meeting space, including 773,000 square feet total of exhibit space with seven exhibit halls, more than 100 meeting rooms, and 3,600 fixed seating in its amphitheater. GRB's latest improvements, which include the development of a grand entryway and four restaurants, were completed in December '16.

MINUTE MAID PARK, the Houston Astros' retractable-roof downtown baseball stadium with seating for 41,000, opened in April '00. In '19, a \$25-million renovation to the

stadium's suite level, to be paid for by the Astros, was approved by the Harris County Houston Sports Authority. The stadium's ornamental train, positioned 90 feet above the field on the left-field wall, makes its way along the 800-foot track whenever the Astros score a homerun.

FERTITTA CENTER, formerly known as Hofheinz Pavilion, is home to the University of Houston Cougars men's and women's basketball teams. The 7,100-seat multipurpose area, built in 1969, underwent a \$60-million transformation in '18, including the addition of a seating bowl bringing fans only 10 feet from the sideline and a new audio system, sports lighting and video boards.

NRG PARK, which occupies 350 acres and offers 26,000 parking spaces, is among the most versatile sports and meeting complexes in the United States. Hosting over 500 events annually, NRG Park includes the following venues: NRG STADIUM, a 71,995-seat football stadium with a retractable roof and natural grass, opened in '02. It is home to the National Football League's Houston Texans and the Houston Livestock Show and Rodeo.

NRG CENTER, opened in '02, has 1.4 million square feet, which includes 706,000 square feet of contiguous exposition space and 59 meeting rooms.

NRG ARENA has 350,000 square feet of exhibit space, an 8,000-seat arena and a 2,000-seat pavilion.

NRG ASTRODOME debuted in 1965 as the first full-enclosed sports stadium seating over 70,000. It was added to the national register of historic places in '14

OTHER SPORTS VENUES

RICE STADIUM, which opened in 1950, is a 47,000-seat football stadium located on the Rice University campus. It has been the home of the Rice Owls football team since its completion in 1950 and hosted Super Bowl VIII in 1974. It was at this stadium in 1962 where President John F. Kennedy made his famous challenge to America, to place a man on the moon and bring him safely home again by the end of the decade.

TDECU STADIUM, which opened in August '14, is a \$125-million, 40,000-seat football stadium located on the campus of the University of Houston. To ensure the best level of comfort for Houston fans and studentathletes, sun and shade studies were conducted prior to construction.

TOYOTA CENTER, which opened in '03, is a sports and entertainment center located downtown. It is home to the National Basketball Association's Houston Rockets. The center can seat 18,300 for basketball and up to 19,000 for concerts.

PROFESSIONAL TEAMS IN GREATER HOUSTON



HOUSTON ASTROS'17 World Series Champions

Major League Baseball's American League Minute Maid Park



HOUSTON ROCKETS

Western Conference in the National Basketball Association Toyota Center



HOUSTON DASH

National Women's Soccer League BBVA Compass Stadium



HOUSTON TEXANS

American Football Conference in the National Football League NRG Stadium



HOUSTON DYNAMO

Major League Soccer's Western Conference BBVA Compass Stadium

HOUSTON ROLLER DERBY

Women's Flat Track Derby Association Revention Music Center

HOUSTON SABERCATS

Major League Rugby Aveva Stadium

HOUSTON ROUGHNECKS

West Division of the Xtreme Football League TDECU Stadium

SUGAR LAND SPACE COWBOYS

'18 Atlantic League World Champions
Pacific Coast League
Constellation Field





CITY OF HOUSTON PARKS

Houston Parks and Recreation Department (HPARD) oversees 381 developed municipal parks and more than 167 green spaces, which together encompass approximately 39,501 acres.

HPARD owns and operates 60 community centers across the city along with the Metropolitan Multi-Service Center.

MAJOR CITY OF HOUSTON PARKS:

CULLEN PARK (10,488 acres)

LAKE HOUSTON WILDERNESS PARK (4,787 acres)

MEMORIAL PARK (1,504 acres)

HERMAN BROWN PARK (717 acres)

EISENHOWER PARK (682 acres)

KEITH-WIESS PARK (499 acres)

HERMANN PARK (445 acres)

BUFFALO BAYOU PARK (160 acres)

MACGREGOR PARK (85 acres)

Metropolitan Multi-Service Centers provide access to year-round activities for children and adults with disabilities

AMENITIES IN CITY OF HOUSTON PARKS INCLUDE

232 Playgrounds

201 Tennis Courts

173 Basketball Courts

165.3 Miles of Trails

161 Baseball & Softball Fields

87 Soccer Fields

75 Practice Backstops

38 Pools

27 Water Spray Grounds

20 Volleyball Courts

16 Football/Rugby/ Cricket/Lacrosse Fields

14 Fitness Centers

13 Dog Parks

12 Community Garden Sites

8 Golf Courses

7 Skate Parks

4 Nature Centers

NEW AND RECENTLY HONORED PARKS

CULLINAN PARK, a 754-acre park in Sugar Land, is currently undergoing renovations to improve its trail routes, playgrounds and include additional parking spaces. Phase 2 is planned for late '22.

MEMORIAL PARK, a 1,504- acre park, opened the Clay Family Eastern Glades in summer of '20. The Clay Family Eastern Glades is a 100-acre urban oasis within Memorial Park featuring a lake, picnic pavilions and a boardwalk.

HOUSTON BOTANIC GARDEN, a

132-acre botanical garden, opened in '20. The botanical garden provides a vast collection of plants from around the world.



DOWNTOWN HOUSTON PARKS

ALLEN'S LANDING, referred to as "Houston's Plymouth Rock," is where August Chapman and John Kirby Allen after sailing up Buffalo Bayou stepped ashore in 1836 to found Houston.

DISCOVERY GREEN, a 12-acre park adjoining the George R. Brown Convention Center, opened in '08. It has since increased tourism and development in the area.

ELEANOR TINSLEY PARK, a section of Buffalo Bayou Park, immediately west of downtown, is the site of major Houston festivals and events with downtown Houston's skyline in the backdrop.

HERMANN SQUARE, serves as the courtyard of City Hall, occupies a city block, and is dominated by a reflecting pool. The park is also home to many festivals and concerts throughout the year.

MARKET SQUARE, located in the Historic District, was Houston's original town center. The park now provides live entertainment, shaded walkways and dog runs.

ROOT SQUARE was donated in 1923 by the descendants of Alexander Porter Root. Located across from the Toyota Center, the park has a basketball court, a shade pavilion and displays civic art.

SAM HOUSTON PARK, the city's first park, was acquired in 1899. The park's 19.7 acres is home to well-preserved monuments and 10 restored historical buildings.

SESQUICENTENNIAL PARK, is a

22- acre urban oasis created to commemorate Houston's 150th birthday in 1986. The park features cascading waterfalls, a gazebo and a promenade.

THE ACRE, located between One and Two Allen Center, is a new urban park with a plaza and linear lawn.

TRANQUILITY PARK, between Walker and Rusk Streets, was dedicated on the 10th anniversary of the first lunar landing to honor Apollo 11 and includes cylindrical water fountains.

MAJOR HARRIS COUNTY PARKS

GEORGE BUSH PARK (7,800 acres)

ARMAND BAYOU NATURE CENTER (2,500 acres)

BEAR CREEK PIONEERS PARK (2,154 acres)

CONGRESSMAN BILL ARCHER PARK (926 acres)

TERRY HERSHEY PARK (496 acres)

CHALLENGER SEVEN MEMORIAL PARK (326 acres)

MERCER ARBORETUM & BOTANIC GARDENS (325 acres)

ROY CAMPBELL BURROUGHS PARK (320 acres)

JESSE H. JONES PARK & NATURE CENTER (312 acres)

GENE GREEN BELTWAY 8 PARK (250 acres)

ARTHUR STOREY PARK (175 acres)

CYPRESS PARK (165 acres)

TOM BASS REGIONAL PARK (115 acres)

STATE PARKS

BRAZOS BEND STATE PARK

(5,000 acres) has nature trails and horseback riding. The park is located approximately 45 miles southwest of downtown Houston in Fort Bend County.

GALVESTON ISLAND STATE PARK

(2,013 acres) provides access to the gulf beach and amenities such as fishing, hiking, kayaking, and bird watching. The park is located southeast of Houston in Galveston County.

SAN JACINTO BATTLEGROUND STATE HISTORIC SITE (1,200 acres) has a 570-foot tall monument and is located 22 miles east of downtown Houston in Harris County.

SHELDON LAKE STATE PARK & ENVIRONMENTAL LEARNING
CENTER (2,800 acres) is filled with wetlands, lakes, and ponds. The park is located 22 miles northeast of downtown Houston in Harris County.

STEPHEN F. AUSTIN STATE PARK

(473 acres) has acres of wetland and hardwood forests located 51 miles east of downtown Houston in Austin County.

FORESTS

SAM HOUSTON NATIONAL FOREST,

located 65 miles north of Houston, is the largest of the four national forests in Texas. The forest contains 163,037 acres in Montgomery, San Jacinto and Walker counties.

W. GOODRICH JONES STATE
FOREST, an urban working forest
covering 1,733 acres, is located 40
miles north of Houston near Conroe
in Montgomery County. The forest
provides nearly 15 miles of trails,
horseback riding and two small
lakes for fishing. It is owned and
administered by the Texas A&M
Forest Service.

WILDLIFE REFUGES

Houston is located along the Central Flyway, a bird migration route, and over 500 species of birds migrate through or make Houston their home. Migration occurs spring through fall, depending on the species.

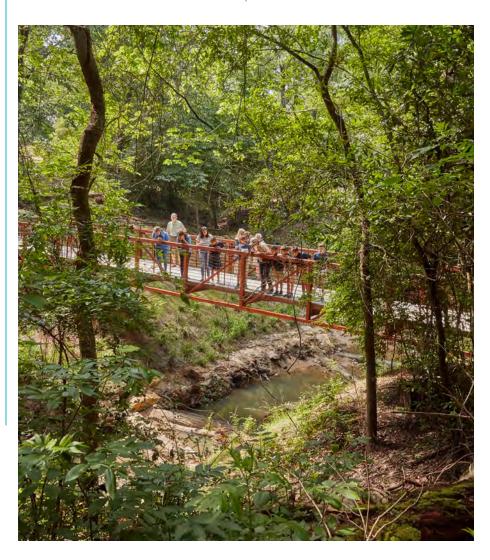
Wildlife refuges in the greater Houston area include the Anahuac National Wildlife Refuge in Chambers County, the Brazoria and San Bernard National Wildlife Refuges in Brazoria County, and the 30,000-acre Trinity River National Wildlife Refuge in Liberty County.

Houston Audubon, the largest chapter of Audubon Texas, is headquartered at the Edith L. Moore Nature Sanctuary in West Houston. Among its 17 sanctuary locations are Bolivar Flats, High Island, and West Galveston Bay. Houston Audubon's sanctuaries total 4,121 acres.

HOUSTON ZOO

The Houston Zoo, founded in 1922, receives more than 2 million visitors per year and is the second mostvisited zoo in the U.S. Occupying 55 acres in Hermann Park and accredited by the Association of Zoos and Aquariums, the Zoo is home to more than 700 species and over 350 employees.

In '18, the Houston Zoo announced its plans for a \$150-million renovation, which will add several new exhibits featuring an avian conservation center, South America's Pantanal, and the Galapagos Islands. The renovation will be complete in '23. This project is part of a 20-year master plan focused on improving the geographic ecosystems of its inhabitants.



	1866 O Houston's first bank, First National Bank, is founded.	1910 s
HISTORY	Houston Stonewalls defeat Galveston Robert E. Lees 35-2 in first recorded baseball game in	Congress accepts, from a group of Houston businessmen headed by the Houston Chamber of Commerce, a novel plan to split
1830s	Houston. Houston's first trolley cars (mule-	ship channel development costs between Houston and the federal government.
On April 21, General Sam Houston's army wins Texas' independence from Mexico in the Battle of San Jacinto.	1880s	Rice Institute (now Rice University) begins classes.
Houston founded on Aug. 30 by brothers Augustus C. and John	1880 O Houston's first telephone exchange is created.	1913 Houston Symphony is established.
K. Allen, who pay just over \$1.40 per acre for 6,642 acres near headwaters of Buffalo Bayou.	Houston Electric Light Co. is organized. Houston and New York are the first cities to build electric	George Hermann donates 285 acres to the city for a public park near Rice Institute.
Allen Brothers call on Gail Borden (publisher, surveyor, originator of condensed milk) and Thomas	power plants. 1882 Houston gets its first arc light.	The 25-foot-deep Houston Ship Channel is completed and formally dedicated.
H. Borden to survey the site. Gail Borden lays out the town's streets 80' wide, with the principal eastwest street (Texas Ave.) 100' wide.	1887 Sisters of Charity open Houston's first general hospital.	1915 First deepwater vessel, the S.S. Satilla, calls at Houston.
General Sam Houston, first president	1891 Houston is first Texas city with electric streetcars.	1920s
of the Republic of Texas, signs an act authorizing Houston to incorporate. Houston is capital of the Republic from 1837-1839.	Houston Business League is founded (became Houston Chamber of Commerce in 1910).	Oil refineries proliferate along the Ship Channel, taking advantage of inexpensive waterborne shipping.
The Laura is the first steamship to visit Houston.	1895 Houston Fire Department replaces Houston Volunteer Fire Department.	Houston adopts ordinance dedicating tax monies to its library system.
A bucket brigade, Protection Fire Company No. 1, is formed to fight	1897 Automobile first appears in Houston as an advertising gimmick.	Second National Bank becomes Houston's first air-conditioned
fires.	1897 Houston's first asphalt street paving is laid on Franklin St.	building.
On April 4, seven Houston businessmen form the Houston	Galveston Country Club opens with Texas' first recorded professionally designed golf course.	Houston Museum of Fine Arts, the first fine arts museum in Texas, opens.
Chamber of Commerce.	First Houston city park opens. (This site, now Sam Houston Park,	1926 Natural gas first piped into Houston.
1841 Houston Police Department is formed.	1899 O (This site, now Sam Houston Park, contains several of Houston's earliest buildings.)	Houston Colored Junior College, the forerunner of Texas Southern University, established.
Texas' oldest newspaper, The Galveston County Daily News, is first published.	1900s	Houston Junior College (now the University of Houston) is established.
1846 O Texas becomes the 28th state.	A Category 4 hurricane — deadliest in U.S. history — strikes Galveston, claiming more than 6,000 lives and	1028 National Democratic Convention is
1850s	causing property damage exceeding \$30 million (\$902 million in 2019	1928 Municipal airport opened; air mail
First census after Texas joins the United States counts 2,396 Houstonians. Galveston, with 4,117 residents, is the state's largest city.	dollars). Houston Left Hand Fishing Club purchases the city's first automobile from Olds Motor Works of Detroit.	service to Houston begins. City Planning Commission recommends that Houston adopt a zoning ordinance but finds scant
Houston's first railroad — the Buffalo Bayou, Brazos & Colorado Railroad	Oil discovered at Spindletop, and	support.
 begins operations. Texas Legislature appropriates 	later discoveries at Humble in 1905 and Goose Creek in 1906, put Houston in the center of new oil and	1930s
1853 \$4,000 for Buffalo Bayou improvements.	oilfield equipment development.	1930 Census ranks Houston as state's most populous city at 292,352.
Three competing firefighting companies combined into the	Congress appropriates \$1 million for work on the Houston Ship Channel.	First Houston Fat Stock Show & Rodeo (now Houston Livestock
Houston Volunteer Fire Department.	1905 Houston has 80 automobiles. Houston city council sets speed limit	Show and Rodeo) held. 1934 Intracoastal Canal links Houston to
1860s	of 8 mph.	Mississippi River navigation system. Braniff International inaugurates first
City provides "land and good buildings" for a smallpox/yellow fever hospital.	Houston Museum and Scientific Society, Inc., predecessor of the Houston Museum of Natural Science, is organized.	1935 Scheduled air passenger service to Houston.
Houston and Harris County vote to secede from the Union. During the	Houston police begin using	1940s
Galveston. Emancipation of slaves in Texas is	motorcycles to enforce speed limits. Houston Country Club opens with Houston's first professionally-	Petrochemical complex develops, taking feedstocks from nearby refineries.
1865 O announced from Galveston, leads to Juneteenth holiday.	designed 18-hole golf course.	New master plan for Houston thoroughfares emphasizes a loop system.

New master plan for Houston thoroughfares emphasizes a loop system.

	1007 Voters approve creation of Harris	A \$60-billion boom in chemical plant construction begins along the Gulf
1943 O Texas Medical Center is founded. Houston Golf Assn. hosts its first	County Toll Road Authority.	2013 Coast. Construction boom helps to offset job losses in energy over the next two years.
1946 PGA Tour event — now the Houston Open, 10th oldest event on the PGA	Trough of recession in January; net recession loss of 221,900 jobs.	Oil prices peak at \$108 per barrel in June before plunging 75% over
schedule. Houston College for Negroes acquired by Texas Legislature;	Wortham Center, home to Houston Ballet and Houston Grand Opera, opens.	2014 the next 18 months devastating the local energy industry. Nearly 80,000 energy-related jobs are lost.
1947 established as Texas State University for Negroes (now Texas Southern University).	Houston Chamber of Commerce, Houston Economic Development Council and Houston World Trade Association combine to form Greater	Hobby Airport launches international service with the opening of the airport's first international terminal.
1947 Alley Theatre established.	Houston Partnership.	Ellington Airport receives a
1947 Engineering begins on the Gulf Freeway, Texas' first freeway.	1990s	2015 Commercial spaceport license by the Federal Aviation Administration.
1948 Houston voters reject proposed zoning ordinance.	Houston economic recovery complete; April job count above March 1982 level.	The energy downturn bottoms out and a slow recovery begins.
Dec. 31 annexation expands Houston's area from 74.4 to 216 square-miles.	Houston hosts 16th annual Economic Summit of Industrialized Nations.	2017 Houston hosts NFL Super Bowl LI. Hurricane Harvey inundates
1948 Port of Houston ranks second nationally in total tonnage.	Houston City Council mandates first zoning regulations.	Houston with five days of rain. Total rainfall exceeds 50 inches in many parts of the region.
1949 KLEE-TV broadcasts first Houston commercial TV program.	1992 Republican National Convention held in Houston.	The American League Houston Astros defeat the National League
1950s	1993 Houston voters reject proposed zoning ordinance.	League Baseball's World Series.
KUHT-TV, the nation's first public broadcast TV station, goes on the	2000s	Rice University announces plans to develop new hub for Innovation District in Midtown.
air. 1955 Houston Grand Opera Association	2000 Census finds Houston MSA has no racial or ethnic majority.	The world celebrates the 50th anniversary of the Apollo 11 lunar landing on July 20.
Houston metro area population	Minute Maid Park, home of Major League Baseball's Houston Astros, opens.	The COVID-19 pandemic arrives in
1960s NASA's Manned Spacecraft Center	Tropical Storm Allison inundates Houston June 5-9, claiming 22 lives and inflicting \$4.9 billion in property damage, with storm precipitation as high as 35.67 inches in some areas.	Houston infecting nearly 85,000 residents and causing nearly 1,200 deaths during the first four months of the outbreak. Over 350,000 jobs are lost in March and April, an economic recovery begins in May.
moves to Houston. Houston voters reject proposed zoning ordinance.	NRG Stadium, home of the National Football League's Houston Texans, opens.	2020 In December Houston receives its first shipment of COVID-19 vaccine.
1965 First event held in the Astrodome.	2002 Hobby Center for the Performing Arts opens.	Winter Storm Uri causes Houston temperatures to plunge to record lows. The city records up to four
Houston Intercontinental Airport begins operations. "Houston" is the first word spoken	Toyota Center, home of the National Basketball Association's Houston Rockets, opens	lows. The city records up to four inches of sleet and snow.
1969 O "Houston" is the first word spoken from the lunar surface.	Houston's first modern light rail line, 7.5-miles long, begins operations.	2021 Rothko Chapel celebrates its 50th anniversary as a landmark of modern art.
1970s	2004 Houston hosts NFL Superbowl	Rice University opens the Ion, a tech-focused hub in the Innovation
1970 O The Galleria opens. Shell Oil Co. relocates corporate headquarters to Houston. More than	More than 100,000 evacuees flee to Houston from southern Louisiana in the wake of Hurricane Katrina.	Corridor. ExxonMobil announces its relocating its HQ to Houston, the third Fortune
1971 200 major firms move headquarters, subsidiaries and divisions here in the 1970s.	Hurricane Ike makes landfall Sept. 13 at Galveston as a Category 2	500 company to do so in 14 months.
Arab oil embargo quadruples oil prices in 90 days, fueling Houston's 1973-1981 economic boom.	storm, claiming at least 70 lives and causing some \$27 billion in property damage along the Texas Gulf Coast, ranking it third most costly among U.S. hurricanes.	2022 By April, Houston has recovered all its pandemic job losses.
1978 Ovoters approve and fund Metropolitan Transit Authority.		
	2010s	
1980s	By November, Houston returns to 2011 2008 pre-recession employment	
1082	By November, Houston returns to 2008 pre-recession employment levels; first major metro to do so.	
F	By November, Houston returns to 2011 O 2008 pre-recession employment	

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